DOCUMENT RESUME

ED 069 249 HE 003 576

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|---|---|
| TITLE | Financing University Programs in Education. Report on the Special Study of Requirements for the Formula Financing of Education Programs in Ontario Universities. |
| INSTITUTION | Committee of Presidents of Universities of Ontario, Toronto. |
| PUB DATE | Mar 71 |
| NOTE | 73p.; CUA/COU Joint Subcommittee on Finance/Operating Grants |
| EDRS PRICE | MF-$0.65 HC-$3.29 |
| DESCRIPTORS | *Budgeting; *Educational Economics; Educational Finance; *Financial Support; *Higher Education; International Education; *Teacher Education |

ABSTRACT

In recent years, the teachers colleges in Ontario have been integrated into the university systems, and it is anticipated that within a short period of time all teacher education programs will be handled through the universities. This addition to the responsibilities of the universities requires that the funding formula used by Ontario universities be revised to include teacher education expenses. This special study on financing of programs in education at Ontario universities includes discussions of the transition to formula financing; planning for teacher education in the seventies; cost implications with relation to salaries, curriculum matters, and practice teaching; and the funding of graduate education programs. (SH)

ED 069249

# Financing University Programs in Education

*Report on the Special Study of Requirements for the Formula Financing of Education Programs in Ontario Universities*

**CUA/COU JOINT SUBCOMMITTEE ON FINANCE/OPERATING GRANTS**

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**RELEASED DECEMBER, 1970**
**REVISED FOR PUBLICATION MARCH, 1971**

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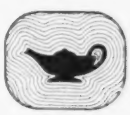

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# *Preface*

This special study on financing of programs in education at Ontario universities was carried out during the fall months of 1970 for the Joint Subcommittee on Finance/Operating Grants of the Committee on University Affairs and the Committee of Presidents of Universities of Ontario (recently renamed the Council of Ontario Universities).

Members received and considered this Report in preliminary version and approved its recommendations on December 6, 1970. It was immediately transmitted for the information and action of the two parent bodies and was approved in principle at the Joint CUA/CPUO meeting of December 15 for recommendation to the Minister.

Subsequently the recommendations of the Report were accepted by the Minister on a provisional basis, and applied in arriving at grant decisions commencing in 1971-72.

We are grateful to the Co-Directors of the Study, Mr. J. S. Bancroft, Director of Finance of the Department of University Affairs, and Mr. B. L. Hansen, Director of Research of the Council of Ontario Universities, and to members of their respective staffs for this contribution to the further understanding of the intricacies of formula financing. In view of the quality of this Report and the interest which it generated, it was decided to have it published for wider distribution.

May, 1971

J. H. Sword
D. T. Wright } *Co-Chairmen*
*Joint Subcommittee on Finance/Operating Grants*

# *The task defined*

**Background and purpose of study**

Integration of teacher education facilities with universities is neither new nor unique to the Ontario jurisdiction. Much of the recent impetus in this direction stems from the McLeod Report*, which was published in 1966. The basic guidelines and principles for the integration of teachers' colleges with universities in Ontario were set out in a "Memorandum of Understanding" (March, 1969) released jointly by the Honourable William G. Davis, Minister of Education and University Affairs, and Dr. A. Davidson Dunton, Chairman of the Committee of Presidents of Universities of Ontario (CPUO). The memorandum noted that the costs of providing teacher training should eventually be financed through the existing formula grants system.

Much progress has already been achieved in Ontario towards the goal of providing teacher education – both elementary and secondary – within the university setting. At present no less than six Ontario universities offer teacher training. If the present pace continues, the remaining teachers' col-

* Ontario Committee on the Training of Elementary School Teachers, *Report of the Minister*. C. R. McLeod, Chairman. Toronto, 1966.

leges destined for integration will probably be under the jurisdiction of a university in two or three years' time.

In August 1969, the Committee on University Affairs (CUA) asked that a study be undertaken to ascertain what long-term financing arrangements – in particular those relating to the operating grants formula – might be made for university programs in education. The matter was referred to the Joint Subcommittee on Finance/Operating Grants for study and recommendations.

The Joint Subcommittee is one of several which the Committee on University Affairs and the Committee of Presidents of Universities of Ontario have established. It is principally concerned with revisions and interpretations of the operating grants formula and functions mainly as a technical working party for policy development. This Subcommittee consists of equal numbers of members nominated by CUA and by CPUO and includes officials from the Department of University Affairs and from the Research Division of CPUO who are jointly responsible for the analytical work and secretariat function. (See Appendix A for list of members.)

Recommendations arising from the work of the Joint Subcommittee are directed to CPUO and to CUA. In the case of major policy development, CUA confers directly with CPUO before rendering advice to the Minister. Technical subcommittees are concerned with the general form and logic of major policies and their interpretation and not with detailed implementation of such policies.

In the fall of 1969, the Joint Subcommittee agreed that Mr. B. L. Hansen, Mr. J. S. Bancroft and Dr. D. W. Slater (as Chairman) should undertake the initial work necessary to study the financing of university education programs. An Advisory Group for the study was formed shortly thereafter with the following membership:

Dr. J. H. M. Andrews, *Assistant Director*, Ontario Institute for Studies in Education (1969)

Dr. D. W. Brison, *Co-ordinator of Research and Development Studies*, Ontario Institute for Studies in Education (1970)

Dean J. T. Angus, *Faculty of Education*, Lakehead University

Mr. J. McCarthy, *Assistant Vice-Rector*, University of Ottawa

Dean V. S. Ready, *McArthur College of Education*, Queen's University

Mr. G. L. Woodruff, *Director, Teacher Education Branch*, Department of Education.

Late in 1969 it became apparent that the study could not be completed in time to assist 1970-71 budgetary decisions. The work was then temporarily set aside.

In June, 1970, Dr. Slater resigned from CUA on his appointment as President of York University. The Study Group (See Appendix A) was reconstituted in August 1970 and its work carried through to completion during the autumn under the joint direction of Messrs. Bancroft and Hansen. It was expected that this report would be completed by December, 1970 so that its recommendations might become a basis for formula financing of university programs in education in 1971-72.

The scope of the study was made intentionally broad since many matters not directly financial in nature, but which nonetheless affect costs, needed to be considered. It should be understood, however, that the scope of the inquiry did not extend to a fundamental questioning of how teacher education should be provided. Also, although we did not consider that capital facilities and financing were within our terms of reference, we have identified some concerns and problems in relating programs in education to the capital formula. (Appendix B)

It should be noted that this report is of a technical nature and assumes that the reader is familiar both with the formula financing system in Ontario and with some of the special concerns of teacher education.

The members of the Special Study Group gratefully acknowledge the assistance of all those who have, in one way or another, contributed to the work which has gone into this Report. Cooperation and understanding was at all times extended despite the many occasions when hard-pressed and busy people might well have been tempted to be less charitable.

**Procedures followed**

One of the first tasks of the Study Group was to formulate procedures, identify issues and problem areas and estimate a realistic reporting date. These plans were then further refined after consultation with the Advisory Group.

It was decided that meetings with the universities directly concerned with teacher education were essential if the study was to explore in depth all of the complexities known to exist.

Requirements for information were formidable: past, present and future enrolments, budgets, inventories of class sizes, and salary data. Each institution was also asked to carry out detailed mathematical modelling including calculations of formula weights derived for three situations: actual (1970-71), desirable (also 1970-71) and steady state (at date anticipated). The steady state model was particularly useful as an indication of each institution's aspirations in terms of its needs and its role in the training of teachers.

The exercise with modelling served a good purpose by introducing a common method and approach in arriving at formula weights. Hitherto, such attempts had been of a largely subjective nature. Notwithstanding the discipline imposed by a common method, the weights actually derived by each university varied considerably.

Numerous hearings and meetings provided ample opportunity for a satisfactory airing of the issues. During the three-month study period, some one hundred hours were spent in discussions and meetings. The following list of meetings of the Special Study Group will provide a better idea of the extent of the consultations involved.

| | | |
|---|---|---|
| August 19 | Advisory Group | Toronto |
| October 1 | University of Ottawa | Ottawa |
| October 8 | Queen's University | Kingston |
| October 15 | University of Toronto | Toronto |
| October 28 | University of Western Ontario | London |
| October 29 | University of Windsor | Windsor |
| November 5 | Lakehead University | Thunder Bay |
| November 16 | Department of Education | Toronto |
| November 17 | Association of Deans of Colleges and Faculties of Education | Toronto |
| November 18 | Brock University (at request of university) | St. Catharines |
| | York University (at request of university) | Toronto |
| | Ontario Institute for Studies in Education | Toronto |
| November 24, 25 | Alberta Universities Commission, and University of Alberta | Edmonton |
| November 30<br>December 1 | Board of Regents, Illinois | Springfield, Ill. |
| December 3 | Advisory Group | Toronto |

A list of those attending each meeting appears in Appendix C. In most instances, a member of the Joint Subcommittee was able to be present.

The visits to Alberta and to Illinois were made for two major reasons:

i. to further test the validity of our tentative conclusions and
ii. to examine the different factors which affect the development and costs of education programs in other jurisdictions.

We found that the recommendations of this study are consistent with the patterns of financing provided in Alberta and Illinois. (See Appendix D)

# *Transition to formula financing*

**The formula financing system in Ontario**

The following brief discussion of he formula financing system in Ontario is an attempt to relate certain of its features to the matter at hand. A more comprehensive description of formula financing can be found in documents available from the Department of University Affairs.

The operating grants formula was developed to provide an objective means for determining the share of the total provincial operating grants to be allocated to each university while preserving university autonomy in the internal expenditures of funds.

Among other objectives, the formula is intended (1) to ensure basic income to universities without the requirement of close budgetary review and (2) to provide a more certain basis for university planning.

Under the formula, degree programs are assigned to one of eight basic categories having different weights. Unit weight (1.0) is associated with general degree work offered in a liberal arts "basic core" program. Other programs are categorized roughly on a basis of costs relative to the basic core program, but it is important to note that exact cost relationships are not implied.

Weights for programs were derived originally by referring to existing expenditure patterns, by comparing income generated by various weights to

these expenditure patterns, and by consulting such cost studies as were available. Weights also had to stand the test of informed judgment about their magnitude in relation to the core program. Formula weights do not, and cannot, reflect the very important differences in costs of various courses in different programs and program years. These differences are averaged in the weighting process. In this sense there will always be programs in universities which will have greater and lesser relative unit costs than the average. This being the case, only significant deviations of the current average costs from the original average costs would indicate that a weight change is required. A course's category is not a judgment of the relative importance of that course nor is the distribution of courses in categories intended as a pattern for spending. There is no claim that program weights were developed with any scientific exactness nor would this be necessarily desirable even if attainable.

Experience with the formula has shown that, if anything, the categorizing of programs has been too detailed and therefore any future changes involving categorizing of programs should probably be aimed at aggregating programs rather than adding more.

The Joint Subcommittee on Finance/Operating Grants is concerned that a comprehensive review of the formula, which was to have been undertaken after the initial three years of operation, has yet to be started. That it has not may stem from a kind of inertia which reflects the general approval of the total impact and equity of the formula as it has affected the university system and each of the universities. One view, perhaps because of this satisfactory overall impact, is that there should be no ad hoc tinkering with weights. Nevertheless, a general review of the formula is now overdue. New developments require new adaptations and the formula, no matter how well it has served in its present form, is not immune to this need. It also cannot be denied that there are some instances where the existing formula is already out of date and that there are changes which could be made to the categorization scheme.

This anticipated general review should be taken into account when considering the future of education programs under formula financing. When it is undertaken we would expect that education programs should not be exempted from the process.

Why then should so careful a study be made to determine appropriate weights for education programs at this time? We believe that this study is justified since programs in education represent a major post-secondary segment being brought into an existing university system. At the same time an upgrading of teacher education (with its related implications for resource

allocation) has been seen to be desirable. Also, our ability to assess program costs has improved over the past four years; more sophisticated and appropriate cost modelling and cost finding methodologies are available now and should be applied in studies of this magnitude.

We observe also that the purpose of the formula is to generate income and no interference with internal university financing is implied in the weighting structure. Nor are the weights for education programs necessarily intended to reflect desired spending patterns for the university. Rather they are meant to reflect funding levels that, on the average, will provide the necessary resources to ensure desired quality for programs in education in the Province.

**Existing teacher education programs and arrangements**

The professional training of teachers in Ontario for the elementary and secondary schools is presently provided by Lakehead University, Queen's University, the University of Ottawa, the University of Toronto, the University of Western Ontario, and the University of Windsor. In addition, teachers' colleges are still training teachers for the elementary schools. Each university education program operates subject to an agreement with the Minister of Education, under the authority of the Department of Education Act.

Under these agreements, colleges of education have been established at Queen's University, the University of Toronto and the University of Western Ontario; faculties of education have been established at Lakehead University, the University of Ottawa and the University of Windsor.

In summary, these agreements make the following specific provisions:

*Courses Offered*

(i) High School Assistant Type "A" and "B" Certificates (with elementary option) – all colleges and faculties except the University of Windsor
(ii) Interim Elementary School Teachers' Certificate – all faculties of education and the University of Toronto
(iii) Vocational Certificate – all colleges of education and the faculty of education, University of Ottawa
(iv) Other courses, with the concurrence of the Minister of Education, when certification is involved – all colleges and faculties
(v) Graduate work in education – all colleges of education.

*Advisory Boards or Committees* – all colleges and faculties of education.

*Land and Buildings for Teacher Training*

(i) provided by the Minister of Education and remain the property of the Province – Queen's University and the University of Western Ontario

(ii) provided by the Minister and remain the property of the university – University of Toronto
(iii) leased to the university – University of Windsor
(iv) deeded to the university – Lakehead University
(v) additional lands and buildings or additions to buildings to be provided by the Minister of Education – Queen's University and University of Toronto
(vi) in the event of cancellation of the agreement:
the university shall have the right of first refusal – Queen's University
the property shall revert to the Minister of Education – University of Toronto and University of Western Ontario
terms to be mutually determined – Lakehead University, University of Windsor, and University of Ottawa.

*Appointment of the Dean*

(i) by the university with concurrence and approval of the Minister of Education – Queen's University, University of Toronto and University of Western Ontario
(ii) by the university with concurrence of the Minister of Education on first appointment only – Lakehead University, University of Ottawa and University of Windsor.

*Appointment of Staff*

(i) the university shall make all teaching staff appointments with the concurrence of the Minister of Education – Queen's University and University of Western Ontario
(ii) the university shall make all teaching staff appointments – all universities with the exception of (i) above
(iii) the university shall make all non-teaching staff appointments – all universities.

*Cost of Operation and Maintenance*

Each agreement specifies that the cost of operation and maintenance of the college or faculty of education shall be provided by the Minister out of such monies as may be appropriated therefor by the Legislature.

*Budget Estimates*

(i) Agreements between the Minister of Education and Queen's University, University of Toronto, and University of Western Ontario, stipulate that the University shall submit annual budget estimates to the Minister of Education and an audited statement of expenditures
(ii) No provision is made in the agreements with Lakehead University, University of Ottawa and University of Windsor regarding budget submissions.

*Amendments to the Agreement*

The agreements may be amended at any time by mutual consent – all universities.

*Cancellation of Agreement*

(i) Agreement may be cancelled by either party with one year's notice – Queen's University, University of Toronto, and University of Western Ontario;

(ii) Agreement may be cancelled at any time by mutual consent – all universities.

*Certification*

Pursuant to the agreements, colleges and faculties of education submit names and records of candidates who successfully complete the teacher training courses to the Minister of Education for certification. The Minister of Education retains the right to certify candidates so recommended.

*Finance*

(i) Universities concerned are required to maintain separate financial accounts for colleges or faculties of education under their jurisdiction.

(ii) All costs respecting the operation of colleges and faculties of education at the present time are to be borne by the Provincial Treasury. On the other hand, monies appropriated on behalf of colleges and faculties of education may not be expended on behalf of any other faculty of a university.

While the general form of the agreements indicates that the Minister of Education shall provide the monies required for the operation and maintenance of a college or faculty, in actual practice, once an agreement with a university has been concluded, the funds are provided through the Estimates of the Department of University Affairs. Up to the present it has been necessary for CUA/DUA to carry out a budget review with each individual university in order to determine the annual level of support for its teacher education program. Budget review is generally regarded as unsatisfactory and in the final analysis is likely to be somewhat arbitrary.

Why, it may be asked, is formula financing desirable for university programs in education – and more pointedly, why at this particular time? In most instances existing teacher education programs have reached a stage of maturity and enrolment growth such as to justify their financing on a more regular basis through the formula. Also it will be appreciated that continued financing of these programs in a way that is distinct and separate from other university programs will not contribute to that full integration which is the desired goal.

**Apprehensions**

It would be only fair to say that universities and colleges of education have expressed considerable apprehension about the introduction of formula financing. Colleges of education and teachers' college officials fear that placing their budgets in the hands of university officials along with all the other competing faculties will put them at a disadvantage; education may not rank high on the priority scale of the university hierarchy. For their part university officials are concerned that historical funding levels for education programs will not be equalled by formula funds and that the education faculty will drain resources from the rest of the university. Also salary levels are higher in education (for reasons explained later) yet the level of graduate degree attainment is considerably lower; faculties of education rely heavily on experience whereas traditional university faculties value the Ph. D. and research capability very highly. All of these are seen as factors which make academic and financial integration difficult.

We heard arguments in favour of modified formula financing for one or two years with grants determined by weights but earmarked for education purposes. We rejected this solution however, because it would merely delay the financial integration decision that must come inevitably. Financial separation is inimical to academic integration. In any case, we have recommended that there be continuing liaison between parties involved in teacher education and with this should come the necessary guarantees of protection against financial perturbations in either direction.

While concern on all the foregoing matters is legitimate, it is hoped that this report will demonstrate that apprehension is unwarranted.

**Role of the Minister of Education in teacher education**

The unique feature of teacher education in Ontario when compared with other university activities surely is the role and responsibility of the Minister of Education. The agreements referred to previously between the Minister and each of the universities concerned demonstrates this convincingly. Each of these agreements governs the programs in education which can be offered.

There is, in fact, almost no facet of university programs in education unaffected, directly or indirectly, by the involvement of the Department of Education. Past practices, responsibilities and traditions for teacher education in Ontario are well known and understood. What is required is better liaison between the universities, the funding agency (DUA) and the Department of Education in planning education programs in the province.

Until very recently the Minister of Education had exclusive responsibility for such matters as teacher supply, provision of necessary facilities and programs of study, standards of teacher training, certification, and curriculum. Now, notwithstanding the major direction which the Minister of Education must continue to give to these matters, it is obvious that the universities concerned also have a legitimate interest in these areas.

**The need for continuing liaison**

As investigation and study progressed, it became increasingly apparent that there was a great need in the future for more effective liaison between all of the parties concerned with teacher education.

The Minister of Education and University Affairs, the Minister's advisory body (the Committee on University Affairs) and the universities both individually and collectively are all now involved in teacher education.

Liaison and effective communication between these various agencies is particularly important in a number of areas:

(1) The Province is currently embarked upon a particularly active phase of change and development in teacher education (see page 9).
(2) Effective planning for the future (see page 20).
(3) Practice teaching (see page 39).
(4) Professional development of teachers through summer courses (see page 26).
(5) Supply of and demand for teachers and its impact on enrolments in teacher training programs (see page 21).
(6) Certification and its implications for the curriculum (see page 23).
(7) Financing (which indirectly tends to be an all-pervasive consideration).

We have already mentioned the central role of the Minister of Education with respect to teacher education. The fact is that the various elements – finance, certification, program content, teacher supply and professional development, etc. – are inextricably bound up one with the other. Responsibilities cannot readily be disentangled and assigned in any simple fashion. All parties have interests and are involved to a greater or lesser extent in each function.

# *Planning for teacher education in the seventies*

At the outset of our inquiries we were greatly concerned about what appeared to be the absence of a master plan for the development of education programs and facilities. It was felt that the absence of such a plan for the 70's would affect the usefulness of our study. This was a concern strongly shared by the deans of the faculties and colleges of education.

Master plans, if adhered to strictly, can become straight-jackets which not only inhibit innovation but also make it difficult to adapt to changing needs. What is required in our view, is a plan with sufficient flexibility that innovation and response to changing needs can be accommodated. We do recognize that there are, in developments already undertaken by the Minister of Education, the essential elements of such a flexible plan and a very brief sketch of these recent developments follows.

**Integration with the universities**

The McLeod Report on teacher education was adopted as official policy by the Minister of Education in 1966. One of the most important recommendations of the report was that teacher training should be provided by university faculties of education rather than by the Department of Education

through the colleges of education and teachers' colleges under its jurisdiction.

Initial implementation of this recommendation began in 1967 through discussions between Department of Education officials and universities. The first agreement was confirmed between the Minister of Education and Lakehead University on July 1, 1969. This agreement provided for the transfer of Lakehead Teachers' College to Lakehead University under a newly-established Faculty of Education.

This was followed on September 1, 1969 by an agreement between the Minister of Education and the University of Ottawa which provided for the formal transfer of the University of Ottawa Teachers' College to that university's Faculty of Education. At the same time it was agreed that the university would undertake the training of French language secondary school teachers.

A third agreement was signed July 1, 1970 between the Minister of Education and the University of Windsor which provided for the transfer of the Windsor Teachers' College to the university.

Negotiations are currently under way to provide for the future operation of the teachers' colleges in St. Catharines, London and Sudbury within education faculties or colleges to be established at Brock University, the University of Western Ontario and Laurentian University respectively. Discussions are also taking place between officials of the Department of Education and York University about establishing a major new faculty of education at York.

It is understood that the present Toronto Teachers' College operation will be integrated with the University of Toronto. Similarly, North Bay Teachers' College is to be integrated with Nipissing College. Decisions are still pending about the possibility of transferring to universities the operation of the remaining teachers' colleges (Hamilton, Ottawa, Peterborough, Stratford and Lakeshore).

Teacher training needs and the question of viability will be considered in determining the number of facilities that should be maintained. Apart from tentative plans for York University, it is understood that facilities for the training of secondary school teachers will not be increased in the foreseeable future beyond those presently authorized. A degree of flexibility might be desirable, however, to meet changing requirements in the relative needs for elementary and secondary school teachers.

**Teacher supply and demand – secondary school**

A combination of a high birth rate beginning in 1946 and an increase in the

pupil retention rate experienced by our secondary schools were prime factors in causing the school population to increase from 263,000 in 1960 to 530,000 in 1969. Secondary school population is expected to increase slightly until 1976 after which it will begin to decline.

The increase in the school population created a heavy demand for new secondary school teachers which necessitated training through summer courses and the granting of letters of permission to persons without formal training. Staffing policies of local boards also contributed to the improvement in the student/staff ratio from 23.2:1 in 1960 to 16.4:1 in 1969.

The student/staff ratio will likely stabilize at about the current rate of 16:1 and, barring unforeseen changes to this ratio, increased teacher needs should be influenced in the future mainly by the increase in school population.

Although complete data are not yet available, as of September 30, 1970 there were 1,664 persons authorized to teach under letters of permission. Thus a shortage of trained secondary school teachers is still with us, and could continue in the future as a result of both subject option specialization and the number of students to be educated.

It has only been during the past two years that the number of full-time applicants for secondary school teacher training has exceeded the places available in the present teacher education facilities at Queen's, Toronto, Ottawa, Western and Lakehead. Contributing factors in this catching-up process were the phasing out of summer courses for high school teacher training, the increased number of university graduates, and the general state of the economy which has affected employment opportunities for university graduates.

It is expected that accommodation at Queen's University will be increased by September, 1971 to permit an enrolment of 600, and by September, 1973 to permit a possible enrolment of between 750 and 900. No improvement in facilities is expected for the University of Ottawa before September, 1973 and for the University of Toronto before September, 1974. It has been suggested that York University could provide initial training for secondary school teachers in 1971-72 in temporary accommodations. It would appear that with the levelling off of the student/staff ratio at 16:1, the availability of qualified candidates for teacher training, and the facilities provided or planned, there should be a sufficient number of teachers trained in the full time course to meet the teacher needs of the secondary schools without resorting to summer courses for mature students and vocational students beyond 1973.

**Teacher supply and demand – elementary school**

Enrolment for elementary school teacher training reached its peak in 1968-69 when 9,722 candidates undertook teacher training in the teachers' colleges in Ontario. This heavy enrolment also created the first teacher surplus since the 1930's. Certification requirements were changed in the following year when the academic standing for admission was raised to a minimum of seven Grade XIII credits with an average of 60% (previous requirement was an average of 50%). The effect of this was to reduce the enrolment for elementary teacher training in 1969-70 by 18% to 7,896. A further reduction of 4% was experienced in September, 1970 to a total of 7,571. Despite the reduction it is expected there will still be a surplus of teacher graduates resulting from this intake. It should also be noted that in September, 1970, there was a reduction from the previous year of about 1,000 students with qualifications below a general degree, whereas the number of teacher trainees with a general degree increased by over 600.

Admission requirements for 1971-72 enrolments have been increased to one year of university study beyond Grade XIII. This increase in academic qualification could reduce the enrolment for elementary teacher training next year by 30-50%. Enrolment for 1972-73 will increase slightly over 1971-72 because of an anticipated increase in the number of university arts and science graduates applying for elementary teacher training. Should academic qualifications for certification be increased to a general degree by 1973-74, the number of trainees could decrease 15-20% from the projected 1972-73 enrolment.

**Supply and demand – history and forecasts**

We have examined studies of the Teacher Education Branch and have tabulated below the essential data relating to both the history and the projection of final year enrolments in teacher education programs in the province. Table I shows actual final year enrolments in 1969-70 and 1970-71 and projected enrolments for 1971-72 and 1972-73. In Table II, final year enrolments for the past 10 years have been calculated (taking account of outflows, teachers re-entering the profession, and attrition rates for graduating teachers) and are projected for the next ten years, assuming 16:1 and 25:1 secondary and primary student/staff ratios respectively. These projections represent the numbers needed to meet the new teacher requirements up to 1980-81.

The supply and demand situation for secondary and elementary teachers

**TABLE I**

*Final year enrolments (Full-time, regular session)*
*Teacher education programs*

| Program | ACTUAL 1969-70 | ACTUAL 1970-71 | PROJECTED 1971-72 | PROJECTED 1972-73 |
|---|---|---|---|---|
| *Elementary School Teacher Training* | | | | |
| *Teachers' Colleges* | | | | |
| Hamilton | 904 | 827 | 450 | 570 |
| Lakeshore | 922 | 864 | 500 | 630 |
| London | 697 | 657 | 500 | 630 |
| North Bay | 487 | 392 | 200 | 250 |
| Ottawa | 910 | 840 | 500 | 630 |
| Peterborough | 398 | 356 | 170 | 205 |
| St. Catharines | 368 | 322 | 180 | 225 |
| Stratford | 372 | 345 | 200 | 240 |
| Sudbury | 154 | 158 | 230 | 280 |
| Toronto | 1,771 | 1,857 | 1,200 | 1,475 |
| *Faculties of Education* | | | | |
| Lakehead University | 188 | 178 | 105 | 75 |
| University of Ottawa | 228 | 268 | 305 | 385 |
| University of Windsor | 420 | 426 | 300 | 370 |
| | **7,819** | **7,490** | **4,840** | **5,965** |
| *Secondary School Teacher Training* | | | | |
| Althouse College, University of Western Ontario | 645 | 764 | 800 | 800 |
| College of Education, University of Toronto | 1,926 | 1,475 | 1,550 | 1,550 |
| McArthur College Queen's University | 223 | 333 | 600 | 750 |
| Faculty of Education, Lakehead University | — | 81 | 145 | 115 |
| Faculty of Education, University of Ottawa | 80 | 113 | 200 | 250 |
| | **2,874** | **2,766** | **3,295** | **3,465** |
| **Total** | **10,693** | **10,256** | **8,135** | **9,430** |

*Source: Technical Studies, Teacher Education Branch, Department of Education.*

**TABLE II**

*Final year enrolments in teacher education programs*
*(Being the number required to meet estimated new teacher requirements)*

| | YEAR | ELEMENTARY | SECONDARY | TOTAL |
|---|---|---|---|---|
| ACTUAL | 1960-61 | 5,739 | 1,633 | 7,372 |
| | 61-62 | 5,113 | 2,132 | 7,245 |
| | 62-63 | 4,427 | 2,348 | 6,775 |
| | 63-64 | 4,966 | 2,531 | 7,497 |
| | 64-65 | 5,386 | 2,768 | 8,154 |
| | 65-66 | 5,913 | 3,218 | 9,131 |
| | 66-67 | 6,366 | 3,653 | 10,019 |
| | 67-68 | 6,667 | 4,420 | 11,087 |
| | 68-69 | 9,169 | 3,521 | 12,690 |
| | 69-70 | 7,819 | 4,197 | 12,116 |
| PROJECTED | 1970-71 | 7,490 | 3,400 | 10,895 |
| | 71-72 | 5,050 | 3,400 | 8,450 |
| | 72-73 | 4,950 | 3,425 | 8,375 |
| | 73-74 | 4,700 | 3,525 | 8,275 |
| | 74-75 | 4,900 | 3,400 | 8,300 |
| | 75-76 | 5,200 | 3,075 | 8,275 |
| | 76-77 | 5,400 | 2,850 | 8,250 |
| | 77-78 | 5,775 | 2,500 | 8,275 |
| | 78-79 | 6,400 | 1,775 | 8,175 |
| | 79-80 | 7,025 | 1,250 | 8,275 |
| | 80-81 | 7,100 | 1,200 | 8,300 |

NOTE: Student/Staff ratio in school system assumed to be constant from 1970-71 forward at 25:1 for elementary and 16:1 for secondary schools.

*Source: Technical Studies, Teacher Education Branch, Department of Education.*

**TABLE III**

*Teacher supply and demand comparisons, 1971-72 and 1972-73*

| | 1971-72 | 1972-73 |
|---|---|---|
| *Elementary Teachers* | | |
| Required minimum enrolment | 5,050 | 4,950 |
| Projected enrolment | 4,840 | 5,965 |
| Difference | –210 | +1,015 |
| *Secondary Teachers* | | |
| Required minimum enrolment | 3,400 | 3,425 |
| Projected enrolment | 3,295 | 3,465 |
| Difference | –105 | +40 |
| *Total Teachers* | | |
| Required minimum enrolment | 8,450 | 8,375 |
| Projected enrolment | 8,135 | 9,430 |
| Difference | –315 | +1,055 |

is presented in Table III. From this table we conclude that in 1972-73 enrolments in teacher education programs could well begin to exceed immediate requirements and result in a surplus of teachers. Given these projections, and considering the agreements now under discussion for universities to undertake teacher education, the indication is that no new teacher training facilities beyond those now contemplated are likely to be required during this decade.

Projected total requirements for teachers in Ontario show a levelling off at the 1971-72 level. However, after 1974-75 it is anticipated that the required mix of elementary and secondary teachers will change quite drastically as the requirement for secondary teachers decreases and that for elementary teachers begins to increase.

Professional training is expensive, particularly in terms of facilities, and enrolments should in the long run have a strong and definite relation to need. This could reinforce the case for discontinuing the separate streaming of elementary and secondary teacher candidates and for providing interchangeable facilities.

**Summer Courses for Professional Development**

For the purposes of this study the following definitions are useful in understanding summer course activity in the professional development of teachers:

CREDIT COURSES

A credit course is one leading to a teaching certificate issued by the Department of Education. These courses are eligible for formula support. Certificates offered are of two varieties:

(i) *Basic Teaching Certificate*

A basic certificate is defined as the first certificate which qualifies an individual to teach in the elementary or secondary schools of Ontario. It may be obtained by an individual who, having met all other requirements, successfully completes a full-year course or a summer course sequence offered by a College of Education, Faculty of Education or a Teachers' College.

(ii) *Additional Teaching Certificate*

An additional certificate is defined as a certificate issued by the Department of Education to a teacher who completes successfully a credit course and who holds a basic teaching certificate, or to an individual who completes successfully an optional course concurrently with a basic certificate course.

NON-CREDIT COURSES

A non-credit course is defined as a course which does not lead to a basic or additional certificate. Such courses are not eligible for formula financing. A non-credit course normally requires fewer than 120 hours student time and is frequently of one or two weeks' duration.

**Summer Courses at Colleges and Faculties of Education**

BASIC CERTIFICATE COURSES

An individual who successfully completes the initial eight-week summer course may be granted a Temporary Secondary School Certificate which permits him to teach in a secondary school commencing the September following qualification. The following summer, on successful completion of the seven-week course, the person may be granted an interim certificate valid for teaching in a secondary school.

The summer course route for an Interim High School Assistant Type "B" certificate was suspended in 1968, with the exception of the course for mature students and the special course conducted at Lakehead University in 1969 and 1970.

ADDITIONAL CERTIFICATE COURSES

Additional certificate courses are normally five or six weeks in length. Courses currently offered at colleges and faculties of education are of a specialist nature to meet the requirements of the secondary school system,

**TABLE IV**

*Enrolment in Teacher Education summer courses, 1970*[1]

| Course | Weeks | Althouse College of Education | College of Education U of T | Faculty of Education Lakehead Univ. | McArthur College of Education | Faculty of Education Univ. of Ottawa | Total | Preliminary Estimate 1971 |
|---|---|---|---|---|---|---|---|---|
| *Basic Certificate* | | | | | | | | |
| Commercial Vocational: | | | | | | | | |
| VC2 (two-summer sequence) | 5 | | 109 | | | | 109 | 100 |
| VC3 (three-summer sequence) | 5 | | 420 | | | | 420 | 420 |
| High School Assistants – Initial Course | 8 | | | 333 | 395 | 40 | 768 | 400 |
| High School Assistants – Completing Course | 7 | | 532 | 330 | | | 862 | 750 |
| Occupational (Practical) Type B (trades and/or services) | 7 | | 83 | | | | 83 | 80 |
| Vocational Course Type B – Initial Course | 7 | | 186 | | | 20 | 206 | 250 |
| Vocational Course Type B – Completing | 7 | 60 | 219 | | | | 279 | 200 |
| *Additional Certificates* | | | | | | | | |
| Business and Commerce | 5 | 159 | 446 | | 74 | | 679 | 600 |
| Home Economics Pt 1 | 7 | 43 | 208 | | | | 251 | 250 |
| Industrial Arts | 5 | | 251 | | | | 251 | 250 |
| Occupational (Professional) Type A | 5 | | 43 | | | | 43 | 40 |
| Physical & Health Education | 6 | 33 | 261 | | 41 | | 335 | 330 |
| School Librarianship | 6 | 68 | 55 | | | | 123 | 125 |
| Professional 6 | 6 | | 169 | | | 8 | 177 | 190 |
| Type A Seminars | | 364 | 881 | | 271 | 60 | 1,576 | 1,600 |
| Vocational Type A | 5 | 51 | 395 | | 44 | | 490 | 450 |
| Other | | | 20 | | | | 20 | 565 |
| | | **778** | **4,278** | **663** | **825** | **128** | **6,672** | **6,600** |

[1] These professional development courses were offered by the colleges and faculties of education at the request of the Department of Education.

such as physical education, home economics, Type A seminars, industrial arts, etc.

UPDATING COURSES (NON-CREDIT)

These are short, non-certificate courses, normally one or two weeks in length.

**Summer Courses Offered by the Department of Education**

In 1970 the Department of Education provided 31 types of additional certificate courses at 75 locations for trained elementary and secondary school teachers of Ontario. Enrolment has been approximately 15,000 teachers per year.

A strong incentive for elementary school teachers to attend these courses is that successful completion of five additional certificate courses will permit the upgrading of an elementary school teaching certificate Standard 1 to a Standard 2 or from a Standard 2 to a Standard 3 with a consequent increase in salary. Changes in these Standards or in the requirements for them could, of course, affect levels of enrolment.

It is our understanding that consideration is being given to having the universities assume some responsibilities for these courses which are now organized by the Professional Development Branch of the Department of Education.

## *Cost implications*

What weighting factors are appropriate for the colleges and faculties of education? To help us provide answers to this question we invited representatives of the universities and their teacher education institutions to participate in an exercise in mathematical modelling. The purpose of the exercise was to indicate what formula weights would be required to support the education programs at their present level of enrolment and curriculum development and also at the steady state level as determined by each institution.

In completing the model the institutions were asked to develop a formula weight such that the revenue generated by the students in one teaching section equalled the cost of offering that section. The model is similar to that used in analyzing the required levels of extra- formula support for the emerging universities. Input data for the model included average student course load, faculty salary and workload (in terms of course sections), student-staff ratios, and full-time equivalent enrolments. The results varied from a formula weight of about 1.0 to 3.5, showing sizes and ranges of development of the institutions and the range of their program and course offerings.

We sought to achieve several objectives in asking the institutions to develop the model. Mathematical modelling allows one to analyze how, and to what degree, certain factors affect the average costs of programs offered. Later consultation with several of the colleges and faculties of education supported the belief that the exercise would prove useful for this purpose.

Initially, we saw the model serving also as a framework for discussing the financial and statistical data submitted by the institutions. This use of the model did not develop fully during the meetings since there was insufficient time for this purpose. This was not a serious drawback because much of the financial and statistical information proved to be self-explanatory.

The major benefit to the Study Group deriving from application of the model was the indication of the approximate formula weight that would be necessary. At the beginning of the study there was, not unexpectedly, considerable speculation about what formula support was actually required for the education programs. At the same time little was known about the aspirations of the institutions in terms of factors such as student-staff ratios and average section size at steady state.

Though the model proved to be a useful tool at the institutional level it did not prove to be the most appropriate means for deriving a formula weight for the system. Instead the study group relied on another mathematical model based on staff-contact hours and student course hours.

The average cost per student, exclusive of administrative overheads and practice teaching, was assumed to be the product of two factors: a cost per staff-contact hour and the number of staff-contact hours per student. Thus,

$$\text{Average Cost per Student} = \text{Cost per Staff-Contact Hour} \times \text{Staff-Contact Hours per Student}$$

In general, the departmental or faculty budget is used in support of two main activities: formal instruction, which can be expressed in terms of staff-contact hours, and graduate thesis supervision and research. The term "instruction factor" is introduced to define that portion of the faculty budget which is required to support the formal instruction. The cost per staff-contact hour (to the faculty) is therefore equal to the faculty budget devoted to formal instruction divided by the total staff-contact hours.

$$\text{Cost per Staff-Contact Hour} = \frac{\text{Faculty Budget} \times \text{Instruction Factor}}{\text{Total Staff Contact Hours}}$$

Dividing the numerator and denominator of the right-hand expression by the number of staff in the faculty gives the following equation:

$$\text{Cost per Staff-Contact Hour} = \frac{\text{Faculty Budget per Staff Member} \times \text{Instruction Factor}}{\text{Total Staff-Contact Hours per Staff Member}}$$

The average section size for a faculty is equal to the number of yearly student hours divided by the total staff-contact hours available for supporting the student hours.

$$\text{Average Section Size} = \frac{\text{Yearly Hours of Instruction per Student} \times \text{Number of Students}}{\text{Total Staff-Contact Hours}}$$

and by transposition,

$$\text{Total Staff-Contact Hours per Student} = \frac{\text{Yearly Hours of Instruction Per Student}}{\text{Average Section Size}}$$

These expressions for cost per staff-contact hour and staff-contact hours per student can be introduced into the equation for the average cost per student as shown above.

$$\text{Average Cost per Student} = \frac{\text{Faculty Budget per Staff Member} \times \text{Instruction Factor} \times \text{Yearly Hours of Instruction per Student}}{\text{Total Staff-Contact Hours per Staff Member} \times \text{Average Section Size}}$$

The five factors in the equation for average cost per student represent policy variables which can be controlled to varying degrees by the faculty.

*Faculty Budget per Staff Member*

The major proportion of a faculty budget is composed of faculty salaries and reflects the mixture of junior and senior staff and the general age-experience profile. This factor tends to be high for new institutions which initially must offer attractive salaries and positions to attract new and senior staff. It decreases during the early years of development and then increases as staff begin to be promoted through the ranks. Therefore, this factor can be controlled through the salary increases, promotion and tenure policies and the use of part-time staff.

*Instruction Factor*

This factor reflects the relative emphasis placed on undergraduate education by a faculty. The higher the value the more funds are shifted into the undergraduate sector. For this study the factor is assumed equal to 1.0; that is, all funds are assumed to be directed for the purpose of financing course instruction. The only situation for which this assumption is not correct is the University of Ottawa which does offer a graduate program in education. Funds provided for graduate work at the University of Ottawa could not be identified and removed from the total faculty budget (therefore, the effect of assuming an instruction factor of 1.0 for the system would be to overestimate slightly the required formula weight).

*Yearly Hours of Instruction per Student*

This is the number of hours each student must spend in class each year. The control over this variable is partly limited in education programs because of the curriculum requirements of certification.

*Total Staff-Contact Hours per Staff Member*

This is, of course, only an approximate measure of average faculty workload since no explicit recognition is given to administrative duties, community or counselling services. In other words it is assumed that the faculty budget is directly related to faculty workload measured in terms of staff-contact hours. It is recognized that in the short term there can only be a very limited control over this variable.

*Average Section Size*

This is perhaps the most important policy variable and is influenced by two factors: sectioning policy and the number of courses offered in relation to the level of enrolment and available programs.

Table V summarizes the policy variables and the range of values for education programs offered in the system during the 1970-71 session. Maximum and minimum values are shown together with the provincial average. The average for each factor can be combined in the unit cost equation developed previously to determine the average cost per student.

$$\text{Average Cost per Student} = \frac{\text{Faculty Budget per Staff Member} \times \text{Instruction Factor} \times \text{Yearly Hours of Instruction per Student}}{\text{Total Staff-Contact Hours per Staff Member} \times \text{Average Section Size}}$$

$$\text{Average Cost per Student} = \frac{\$26{,}400 \times 1 \times 493.6}{239 \times 25.9} = \$2{,}105.$$

This cost covers only the teaching services provided by the faculty of education. The cost of courses taught by other faculties must be added to this cost. For this study we are assuming that all teaching services are wholly contained within the faculty of education and that the faculty conducts courses only for students enrolled in education programs. In actual fact a few education students do take electives outside the faculty of education but the effect is considered to be minimal.

A provision for the costs associated with practice teaching must be added to the average cost. This is an expenditure unique to education programs. The cost per student for practice teaching in 1970-71 averaged about $500 and ranged from $151 to $705. A schedule of the minimum and maximum rates for the various components of practice teaching is presented in Table VI. For fiscal 1970-71 practice teaching costs averaged approximately 15 per cent of the total ordinary operating budget for a Faculty of Education, and ranged from a low of 7% to a high of 19%. Thus, the average cost per student, exclusive of administrative overheads, would be $2,605, i.e., $2,105 + $500.

**TABLE V**
*Policy variables – Education programs (1970-71)*

| Policy Variable | Effect on Cost per Student | Dimension | Ontario Average† | Maximum | Minimum | Maximum / Minimum |
|---|---|---|---|---|---|---|
| Faculty Budget per Staff Member | Direct | $ per Staff Member | $26,400 | $29,800 | $23,100 | 1.3 |
| Instruction Factor | Direct | % | 1 | 1 | 1 | 1 |
| Yearly Hours per Student‡ | Direct | Course Hours per Student per Year | 493.6 | 815.9 | 381.2 | 2.1 |
| Faculty Workload | Inverse | Contact Hours per Staff Member | 239.0 | 610.0 | 138.9 | 4.4 |
| Average Section Size | Inverse | Students per Instructor | 25.9 | 41.1 | 19.3 | 2.1 |

† Average over six institutions

‡ The range is influenced by session lengths which vary from 20 to 30 weeks.

**TABLE VI**

*Undergraduate Teacher Education*

Range of Cost Components of Practice Teaching – 1970-71

| COMPONENT | | MINIMUM | MAXIMUM |
|---|---|---|---|
| Associate Teacher | – Elementary | $3.00/student/day | $7.50/student/day |
| | – Secondary | $5.00/student/day | $7.50/student/day |
| Principal | – Elementary | $1.25/student/week | $3.00/student/week |
| | – Secondary | $2.50/student/week | $3.00/student/week |
| School Secretary | | nil | $50.00/term for more than 5 associate teachers |
| School Board | | nil | $.50/student/day |
| Student Travel | | nil | $7.00/student/week |
| Student Living Allowance | | nil | $8.00/student/day |
| Total Weeks | | 7 | 9 |

A university budget is assumed to be composed of three major components: academic expenditures, assisted research and administrative overheads which include library expenditures, plant maintenance, student services, administration and other general expenses. The academic expenditure account includes faculty budgets and incorporates expenditures for staff salaries, including full-time, part-time and support staff, furniture and equipment and other ancillary faculty expenses. For this exercise, assisted research is assumed to be non-existent for faculties of education. Averaged over all provincially-assisted universities, administrative overheads constitute 30% of the total ordinary operating expenditures (in the absence of available data for 1970-71 this figure was derived from 1969-70 data submitted to the Department of University Affairs). The average cost per student, including administrative overheads, would equal $3,723[1], which is equivalent to a formula weight for all undergraduate teacher education programs of 2.26 i.e., $3,723/$1,650.[2]

[1] Academic + Research + Overhead = Total
Overhead = 30% of Total
Research = 0
Academic + 0 + 30% of Total = Total
Academic = 70% of Total
Total = Academic/0.7
$3723 = $2605/0.7

[2] Excluding the 30% overhead provision for practice teaching, the weight would be 2.13; i.e., $2105/0.7 = $3007, say $3000 and ($3000 + $500)/$1650 = 2.13.

**The Salary Question**

The average cost of $3,723 is directly related to the five policy variables, which were identified previously, and the cost of practice teaching. Some comments should be directed to their relative values. The average faculty budget per staff member varied from $23,100 to $29,800 with a grand average of $26,400. Full-time faculty salaries comprise the major proportion of the faculty budget (70% in 1970-71). A schedule of average salaries by rank in 1970-71 for colleges and faculties of education together with a comparable schedule for all faculties of the Ontario universities is presented in Table VII.

Average salaries in teacher education are about $2,600 higher than the system average. There can be many reasons for the difference in average. One reason could be the age-experience profile of the faculty. Although there is little factual data to support an argument that the age-experience profile for the staff in faculties of education is greater than the average in the university system a subjective assessment based on discussions with the institutions would indicate that this premise is correct. Recent studies have shown that age-experience is a major determining factor in the level of academic salaries. This factor is also closely linked to the available market of professors for teacher education.

In the past the colleges of education have regarded principals, vice-principals and master teachers as the main manpower source for qualified professors. It is said that colleges are required to offer salaries ranging from approximately $16,000 to $23,000 to attract such manpower.

**Matters of Curriculum**

No comment is necessary on the impact of the instruction factor since a value of 1.0 has been assumed for this study.

The third policy variable in the model, yearly hours per student, relates to the number of instructional hours per year that each student is required to take in order to fulfill the requirements for a degree. For example, a course given for three hours per week in each week of a twenty-week session would generate 60 yearly student hours for each student enrolled. The average student load indicated was 493.6 hours per year, with a minimum of 381.2 hours and a maximum of 815.9 hours.

If the average session lasted 20 weeks then 493.6 hours per year would average to approximately 25 hours per week. Because of the curriculum requirements of certification there is little that can be said concerning the

**TABLE VII**

*Comparative average salary data, 1970-71*
*Colleges and Faculties of Education*[1]

| Rank | Number in Rank | Total Salaries | Average Salary |
|---|---|---|---|
| Dean | 6 | $ 163,200 | $27,200 |
| Professor (with admin. duties) | 23 | 514,760 | 22,381 |
| Professor (without admin. duties) | 24 | 535,907 | 22,329 |
| Associate Professor | 100 | 1,927,122 | 19,271 |
| Assistant Professor | 98 | 1,557,657 | 15,894 |
| Lecturer | 23 | 348,989 | 15,173 |
| Instructor | 4 | 69,885 | 17,471 |
| **Totals** | **278** | **$5,117,520** | **$18,408** |

[1] Excluding Faculty of Education, University of Windsor because the ranks were not comparable.

*Ontario University System*[2]

| Rank | Number in Rank | Total Salaries | Average Salary |
|---|---|---|---|
| Dean | 113.0 | $ 3,087,834 | $27,326 |
| Professor (with admin. duties) | 318.3 | 7,706,836 | 24,212 |
| Professor (without admin. duties) | 1,198.2 | 26,810,856 | 22,376 |
| Associate Professor | 1,923.2 | 31,691,792 | 16,479 |
| Assistant Professor | 2,617.9 | 34,157,097 | 13,048 |
| Lecturer | 915.1 | 9,753,448 | 10,658 |
| Instructor | 182.4 | 1,622,833 | 8,897 |
| **Totals** | **7,268.1** | **$114,830,696** | **$15,799** |

[2] Source: Forms UA-1 (Department of University Affairs). Does not include Faculty of Medicine teaching staffs.

appropriateness or comparison of this value to other programs.

Staff-contact hours per faculty member average 239.0 hours per year. This is one measure of workload but it is by no means comprehensive. For a true measure, the hours spent in the school system, in community work, guidance and student counselling, course preparation time, and administrative duties would have to be added. However, the factor gives an indication of the time expended for undergraduate instruction and the average appears to be consistent with other professional programs.

Average section size is a composite of several factors including student-staff ratios, course load and number of sections per faculty member. The number of course offerings also plays a role in determining average section size. The average section size for faculties of education is 25.9 with a minimum of 19.3 and a maximum of 41.1. At the present time no data have been assembled to show average section size in other disciplines in the Ontario universities and therefore objective comparisons are not possible. It was pointed out at several of the meetings that the colleges felt an obligation to provide the students with instruction structured to delivery at the graduate or post-baccalaureate level, which would imply a need for smaller section sizes than in undergraduate programs.

The number of courses offered in relation to enrolment levels also has a direct bearing on average section sizes. Unit costs vary inversely with average section size. However, it is recognized that a quality dimension (the *number* of courses which *must* be offered) should not be overlooked in pursuing economy-of-scale arguments. Also, extensive course offerings may have historical or regional biases. At one time the College of Education in Toronto was the only institution offering education programs at the secondary level, making it necessary that it provide for all the courses required in the secondary schools. The University of Ottawa supplies French language school teachers while the Faculty of Education at Lakehead University serves the school system in Northern Ontario. All of these factors must be considered in any subjective assessment of average section sizes. Table VIII shows the number of institutions offering the various courses in curriculum and instruction and is presented here to illustrate the scope of course offerings. It should be noted that the course enrolments are seldom less than 25, indicating that they have in most cases reached a viable level.

The following example should serve to illustrate how student-staff ratios, student course load and faculty workload combine to affect average section size.

**TABLE VIII**

*Enrolment in curriculum and instruction courses (1970-71)*

| Course | Number of Institutions offering the course | Number of Institutions offering the course with enrolment less than 25 |
|---|---|---|
| English | 5 | 0 |
| French | 5 | 1 |
| Geography | 5 | 2 |
| Mathematics | 5 | 2 |
| Biology | 4 | 1 |
| Guidance | 4 | 1 |
| History | 4 | 1 |
| P.H.E. (Men) | 4 | 1 |
| (Women) | 2 | 0 |
| Library | 4 | 1 |
| Spanish | 4 | 2 |
| Theatre Arts | 4 | 1 |
| Chemistry | 3 | 0 |
| Commercial | 3 | 0 |
| Computer Studies | 3 | 0 |
| Economics | 3 | 2 |
| Elementary | 3 | 0 |
| General Science | 3 | 1 |
| German | 3 | 1 |
| Physics | 3 | 2 |
| Art | 2 | 1 |
| Classics | 2 | 0 |
| Environmental Science | 2 | 1 |
| Home Economics | 2 | 0 |
| Music | 2 | 1 |
| Political Science | 2 | 0 |
| Technical | 2 | 0 |

All other courses are taught at only one institution and have enrolments in excess of 25.

| Assume, | | Then, | |
|---|---|---|---|
| student-staff ratio | = 12:1 | total student courses | = 6 × 300 |
| student course load | = 6* | | = 1800 |
| faculty workload | = 3 course sections | total faculty | = 25 |
| enrolment | = 300 | total course sections | = 3 × 25 = 75 |

Therefore, average section size = 1800 ÷ 75 = 24*

The sixth factor affecting the average unit cost is the expenditure per student for practice teaching. During the discussions with the institutions no other area proved so provocative as the subject of the practicum and methods of financing it within the general funding for education programs.

**Practice Teaching**

Practice teaching is considered to be a cornerstone of teacher education. From a formula financing point of view, it is a cost item which is not comparable with that of any other university program and as such was expected to be a special problem in the establishment of a formula weight. Because the costs of practice teaching vary from institution to institution the decision was made at the outset not to include it in the modelling exercises. However, considerable time was spent at each meeting with universities discussing the practices and principles of practice teaching and its financing.

At present levels of expenditure, practice teaching appears to require about 15% of the total budget. Funds are provided primarily for three main areas: payment to the "associate teacher" (the regular supervising teacher in whose class the student teaches), student travel and cost of living allowances, and program administration.

The policy of paying stipends to associate teachers has been long established in Ontario. The current rates paid are not standard among institutions and range from $3 per diem at the elementary school level to $7.50 at the secondary level. The cost of living allowances paid to students for out-of-town expenses also vary considerably from institution to institution.

A number of alternative methods for financing this part of the program were proposed and discussed at the hearings. The first notion, probably unrealistic, was that this whole area of practice teaching could be regarded simply as a service provided by teachers in order to maintain high standards for the profession; hence the supplement to income could be discontinued. However, all universities argued that these honoraria were essential in order to attract the best associate teachers. The Special Study Group believed this argument to be debatable. An alternative might be a greater reliance

*A student course load of 5 reduces average section size to 20.

upon the associate teacher's sense of professional responsibility. Professional recognition might be extended to the associate teachers, for example, by having their names listed in the university calendar. Universities might also waive fees for summer or extension courses taken by associate teachers.

A suggestion put forward by one university was that the Board of Education should recognize the status of associate teachers and provide reduced actual teaching loads or release time for them. This alternative might be considered a more professional approach and might enhance the prestige of the profession. Consistent with past practices, however, the Study Group was concerned that any change in the manner in which practice teaching is dealt with should involve discussion with the Ontario Teachers' Federation.

A second proposal was to support practice teaching costs through supplementary grants. The formula-generated income would then finance all of the teacher education program except the practice teaching component. A supplementary grant would be determined each year based on an acceptable per diem rate and length of the practice teaching session with suitable allowances provided for indirect costs and student travel. A variation of this proposal would have student travel and accommodation allowances financed through the Ontario Student Awards Program. Each institution could levy incidental student fees which would then be an eligible cost recoverable under the Student Awards Program.

The payment of a supplementary grant each year for practice teaching would be seen as a full endorsement of present arrangements although, as we have already suggested, there may be a need to re-examine the whole question of how practice teaching should be funded.

In the past, extra-formula earmarked grants have been avoided on the grounds that such grants have undesirable steering effects on expenditure patterns. A supplementary grant for practice teaching could only be spent for that purpose whereas the Minister of University Affairs has followed the rationale that the university should, insofar as is possible, have sole responsibility for the distribution of all of its income. This is an integral part of the philosophy of formula financing in the Province of Ontario.

A third method discussed would involve direct payments to Boards of Education. Under this method the Department of University Affairs or the individual universities would direct a lump sum payment each year to the Boards of Education for the support of practice teaching costs. The Boards would then have discretion to use the funds as they saw fit. However, this method is subject to the same criticisms as the previous suggestions. It was also suggested that this approach would inhibit universities in selecting both the schools and the associate teachers to be involved in practice teaching.

After full consideration of all the various aspects of the problem it has been concluded that practice teaching is an inseparable element of teacher training and that its costs, including student travel allowances, should be provided for entirely within the structure of formula financing. This immediately raises certain problems owing to the varying per diem rates in the Province and the varying costs of student travel and accommodation. These differences and the policy on allowances for student travel should be regarded as a major concern so that some degree of uniformity in rate structures may be attained throughout the Province.

**Application of the Model**

Confirmation that a formula weight of 2 is required to support education programs can be obtained by comparing the formula income that would have been received for the regular session in 1970-71 if a formula weight of 2 had been in effect (Table IX), to both the actual income which was received through the budget review procedure and the formula grant requested by each institution (Table X). In all cases the enrolment base was that projected by each institution in 1969-70 for the 1970-71 fiscal year.

A formula weight of 2 would place education programs in category 3 of the formula financing system together with other professional programs such as engineering, forestry, and nursing. An assessment of the characteristics of category 3 would reinforce the argument developed in the cost analysis that this is the proper category for teacher education programs.

Many programs in Category 3 are of professional content and lead to eventual certification through a duly constituted organization. Several of the programs rely heavily on the use of specialized space. Dental hygiene, for example, requires extensive clinical facilities while engineering programs are weighted toward laboratory instruction. Visits to the facilities at each institution emphasized the role of micro-teaching using closed-circuit networks and the use of laboratory facilities in teacher education.

The programs also tend towards small-group instructions. This is especially true in the upper years of the professional programs and also in teacher education. In summation all of these considerations must be weighed in assessing the formula weight and categorization of education programs.

**TABLE IX**

*Hypothetical income generated in 1970-71 at formula weight 2.0*
*(Undergraduate programs – Based on 1969-70 projections)*

| Institution[1] | Enrolment | Units $ | Basic Operating Income @ $1650 $ | Formula Fees @ $480 $ | Grant $ |
|---|---|---|---|---|---|
| Lakehead | 240[2] | 480 | 792,000 | 115,200 | 676,800 |
| Queen's | 334 | 668 | 1,102,200 | 160,320 | 941,880 |
| Toronto | 1,550 | 3,100 | 5,115,000 | 744,000 | 4,371,000 |
| Western | 800 | 1,600 | 2,640,000 | 384,000 | 2,256,000 |
| Windsor | 425 | 850 | 1,402,500 | 204,000 | 1,198,500 |

[1] The University of Ottawa is not included in this table because budgets were determined on a total faculty basis, including graduate work in education.
[2] F.T.E. enrolment of 40 included for 100 students in concurrent programs.

**TABLE X**

*Comparison of actual, requested and hypothetical formula grants*
For teacher education programs[1] – Regular Session, 1970-71
Based on 1969-70 enrolment projections

| Institution | Actual Grant | Requested Grant | Hypothetical Formula Grant[2] |
|---|---|---|---|
| Lakehead | $ 506,000 | $ 898,805 | $ 676,800 |
| Queen's | 1,582,330[3] | 2,038,430 | 941,880 |
| Toronto | 4,006,000 | 4,968,075 | 4,371,000 |
| Western | 2,416,005[4] | 2,828,000 | 2,256,000 |
| Windsor | 415,000[5] | — | 1,198,500 |

NOTES

[1] The University of Ottawa is not included in this table because budgets were determined on a total Faculty basis including graduate work in education.
[2] Indicates the formula grants that would have been awarded if all education programs had been incorporated in the formula financing system as a weight of 2.0, and a unit value of $1,650.
[3] Includes a surplus of $743,000 carried forward for fiscal 1970-71.
[4] Includes a surplus of $135,000 carried forward for fiscal 1970-71.
[5] Estimate only – Grant for Faculty of Education, University of Windsor has not been finalized.

# *Recommendations*

RECOMMENDATION 1

Formula financing should be applied to undergraduate education programs commencing in fiscal 1971-72.

The procedures now in effect for formula financing do not require amendment as a result of this recommendation. Education programs may be dealt with under the present categories and their weights.

RECOMMENDATION 2

The professional year in teacher education (post-baccalaureate program) should be included in Category 3 with a weight of 2.0.

The weight of 2.0 was derived taking account of many factors. Special cost elements were identified and actual data reflecting past levels of support and the problems of transition to a new method of financing were analyzed.

Curriculum structures, teaching loads, multiplicity of offerings, and economies of scale were examined. This examination was conducted always with the objective in mind that innovation and change in teacher education is desirable and is a prime reason for its integration into the university in that higher standards are implied. Additional resources may be required to improve the staff/student ratio in elementary teacher programs. The weight of 2.0 will provide sufficient resources to improve quality and raise standards while at the same time it will not be so generous as to cause undesirable proliferation of courses and duplication of effort.

RECOMMENDATION 3

The weight of 2.0 should be planned to apply to both elementary and secondary education programs.

Discussions at our meetings and with representatives of other jurisdictions have convinced us that there should be no difference between the weights for elementary and secondary education programs. University officials supported this view almost unanimously.

It is at the present time widely believed that it is necessary to offer relatively greater numbers of courses in teaching methods at the secondary level in order to respond to the variety of specialized subjects in the secondary curriculum. Historically, the scale of operations for financial viability appears to have been greater at the secondary level than at the elementary (conjecture suggests 300-600 for the former and 150-300 at the latter). This condition results in large part from inertia and tradition and we do not necessarily subscribe to it as a pattern for the future.

RECOMMENDATION 4

The four-year concurrent programs should be weighted at 1.25 for each year of the program.

This recommendation reflects an equivalence calculation. Four years of study at 1.25 each provides a total program entitlement of 5.0 units. This may be seen as equal to the general arts and science entitlement for three years (3 x 1.0) and 2.0 for the consecutive year.

It is recognized that this recommendation does not deal with possible five-

year concurrent programs. The establishment of appropriate weights for such programs might therefore at some future date require careful review and study.

RECOMMENDATION 5

(a) After integration of a former teachers' college program with a university, formula financing should not be applied for the first full year of operation. Required financing should be determined instead by a budget review.

(b) After the budget review year, the financing of these elementary teacher education programs should ordinarily be in accord with a five-year "phasing in" period at successive weights of 1.5, 1.6, 1.75, 1.9 and 2.0 commencing in 1971-72.

Elementary teacher programs now offered at the various teachers' colleges and at Windsor, Ottawa, and Lakehead have traditionally been financed at a level less than that reflected by a weight of 2.0. The teaching load and restricted curriculum that must be maintained to exist at the present funding levels are not appropriate to the goals of upgrading standards and improving quality.

The introduction for 1971-72 of one year at university as the minimum admission requirement for elementary teacher training will have a short-run impact of curtailing teachers' college enrolments by as much as 30 to 50 percent compared to the present year. Under formula financing such a curtailment could have drastic financial consequences. On the other hand, a windfall injection of new money in a single year would be inappropriate. Taking enrolment curtailments into account the proposed phasing of weights appears reasonable. Particular situations and circumstances, however, may dictate otherwise.

This recommendation is not intended to apply to concurrent degree programs.

RECOMMENDATION 6

Entitlement for summer certificate programs of professional education (set out in Circular 43 of the Department of Education) should be calculated as the number of summer students multiplied by the part-time conversion factor (Currently 1/6. A change to 1/5 is under active consideration).

The idea that one summer student enrollee be deemed to equal only one course registration is recommended because the enrolment statistics show very great numbers enrolled with consequent reduced unit costs below those for other part-time university credit courses. It would also not be administratively feasible to convert enrolment and course data for programs in professional education for teachers into equivalent university credit courses.

Each institution should take part in the provision of such summer education courses as are required. Program planning, utilization of facilities, and orderly financing make it very desirable that summer enrolments should be roughly distributed among institutions in proportion to full-time enrolments. The location and anticipated summer enrolment levels should be determined as early as possible – preferably no later than the preceding November.

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RECOMMENDATION 7

Special attention should be directed to the financing of small enrolment programs such as those offered in the Faculty of Education, Lakehead University and in the French language secondary teacher education program at the University of Ottawa.

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In accord with precedents now established for emergent support, supplementary grants to the university could be considered. Alternatively, the universities concerned could finance these programs internally.

If there are to be supplementary grants for emergence, such grants should be related to an appropriate phase-out time scale.

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RECOMMENDATION 8

When enrolments in education programs decline as a result of changes in provincial policy, augmentation of ordinary formula income with supplementary grants should be considered.

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It will be appreciated that significant enrolment declines in university education programs can occur as a result of policy decisions. For example, the changed admissions requirements in 1971-72 for entry into one-year elementary teacher training may result in a significant curtailment of numbers in those programs this coming year. As a consequence, universities could

be quite seriously disadvantaged in the financial sense, since budgets are more or less inflexible and are committed at least from one year to the next.

RECOMMENDATION 9

An appropriate body should be formed immediately to provide a forum for discussion and understanding of plans and decisions respecting teacher education in Ontario.

The body should meet regularly and could well serve in an advisory capacity to the Ministers of Education and University Affairs. We have commented previously on the major role of the Minister of Education in teacher education and on the areas where effective liaison between the various parties involved in teacher education is essential.

RECOMMENDATION 10

Teaching staff at all Faculties and Colleges of Education should have access to any resources available for research and development in education.

There is a need for the extension of faculty involvement in research into the educational system in Ontario beyond that which could be accommodated under ordinary formula income alone.

We understand that this matter of general support for research and development in education is now under study by the Provincial Government.

RECOMMENDATION 11

Formula financing of special education programs should *not* be considered at this time.

Special education, a highly specialized field of study, is not yet offered in any of the Faculties and Colleges of Education in Ontario universities. We are told however that such programs similar to those developed elsewhere may be more costly than other teacher education programs. Formula financing should therefore not be applied to special education programs pending further study as to whether greater costs are indeed involved.

**Dollar Implications of Recommendations for Formula Financing (Undergraduate)**

Tables XI through XIII outline the dollar implications of the foregoing recommendations for formula financing in fiscal 1970-71 and 1971-72.

**TABLE XI**

*University teacher education programs*

Government Financing, 1970-71 (Budget Review Basis)

| Institution | Ordinary Grants | Additional Grants (Including Summer Session) | Total |
|---|---|---|---|
| Lakehead | $ 506,000 | $ 51,000[1] | $ 557,000 |
| Ottawa[2] | 2,088,600 | 20,000 | 2,108,600 |
| Queens | 839,330[3] | 215,000 | 1,054,330 |
| Toronto | 4,006,000 | 1,032,000[4] | 5,038,000 |
| Western | 2,281,000[5] | 162,000 | 2,443,000 |
| Windsor | 415,000[6] | — | 415,000 |
| | **$10,135,930** | **$1,480,000** | **$11,615,930** |
| Total of Surpluses carried forward | | | 902,146 |
| **Total Financing** | | | **$12,518,076** |

[1] Excludes surplus from previous year of $24,146.
[2] Includes Graduate Education and Part-time Regular Session.
[3] Excludes surplus from previous year of $743,000.
[4] Includes two special purpose grants: $200,000 Fire Safety Alterations
$200,000 Portable Classrooms
[5] Excludes surplus from previous year of $135,000.
[6] Estimate only – Budget for Faculty of Education, University of Windsor has not been finalized.

**TABLE XII A**

*Undergraduate Teacher Education*

Dollar Implications of Recommendations for Formula Financing, Fiscal 1970-71 (Based on Actual Enrolments)

Enrolment by Weight Category

| Institution | ENROLMENT | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2.0 Students | Units | 1.5 Students | Units | 1.25 Students | Units | Total Students | Units |
| Faculty of Education, Lakehead University | 98 | 196 | 148 | 222 | 128 | 160 | 374 | 578 |
| Faculty of Education, University of Ottawa | 114 | 228 | 226 | 339 | 59 | 73.75 | 399 | 640.75 |
| McArthur College, Queen's University | 334 | 668 | — | — | — | — | 334 | 668 |
| College of Education, University of Toronto | 1,470 | 2,940 | — | — | — | — | 1,470 | 2,940 |
| Althouse College, University of Western Ontario | 764 | 1,528 | — | — | — | — | 764 | 1,528 |
| Faculty of Education, University of Windsor | — | — | 425 | 637.5 | — | — | 425 | 637.5 |
| | 2,780 | 5,560 | 799 | 1,198.5 | 187 | 233.75 | 3,766 | 6,992.25 |
| Actual Summer Session Enrolment[1] (FTE) | 1,112 | 2,224 | | | | | 1,112 | 2,224 |
| **Total** | **3,892** | **7,784** | **799** | **1,198.5** | **187** | **233.75** | **4,878** | **9,216.25** |

[1] Figures provided by Teacher Education Branch, Ontario Department of Education.

**TABLE XII B**

*Undergraduate Teacher Education*

Dollar Implications of Recommendations for Formula Financing, Fiscal 1970-71 (Based upon Actual Enrolments)

| Institution | Total Weighted Enrolment (Units) | FORMULA FINANCING — Basic Operating Income (Unit value $1,650) | **Less**: Formula Fees ($480) | Formula Operating Grant |
|---|---|---|---|---|
| Faculty of Education, Lakehead University | 578 | $ 953,700 | $ 179,520 | $ 774,180 |
| Faculty of Education, University of Ottawa | 640.75 | 1,057,238 | 191,520 | 865,718 |
| McArthur College, Queen's University | 668 | 1,102,200 | 160,320 | 941,880 |
| College of Education, University of Toronto | 2,940 | 4,851,000 | 705,600 | 4,145,400 |
| Althouse College, University of Western Ontario | 1,528 | 2,521,200 | 366,720 | 2,154,480 |
| Faculty of Education, University of Windsor | 637.5 | 1,051,875 | 204,000 | 847,875 |
| | 6,992.25 | 11,537,213 | 1,807,680 | 9,729,533 |
| Summer Session | 2,224 | 3,669,600 | 533,760 | 3,135,840 |
| **Total** | **9,216.25** | **$15,206,813** | **$2,341,440** | **$12,865,373** |

**TABLE XIII A**

*Undergraduate Teacher Education*

Dollar Implications of Recommendations for Formula Financing, Fiscal 1971-72 (Based upon Projected Enrolments)

Enrolment by Weight Category

| Institution | ENROLMENT | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2.0 Students | Units | 1.5 Students | Units | 1.25 Students | Units | Total Students | Units |
| Faculty of Education, Lakehead University | 150 | 300 | 50 | 75 | 278 | 347.5 | 478 | 722.5 |
| Faculty of Education, University of Ottawa | 150 | 300 | 260 | 390 | 40 | 50 | 450 | 740 |
| McArthur College, Queen's University | 600 | 1,200 | — | — | — | — | 600 | 1,200 |
| College of Education, University of Toronto | 1,500 | 3,000 | — | — | — | — | 1,500 | 3,000 |
| Althouse College, University of Western Ontario | 800 | 1,600 | — | — | — | — | 800 | 1,600 |
| Faculty of Education, University of Windsor | — | — | 300 | 450 | — | — | 300 | 450 |
| | 3,200 | 6,400 | 610 | 915 | 318 | 397.5 | 4,128 | 7,712.5 |
| Anticipated Summer Session Enrolment[1] (FTE) | 1,100 | 2,200 | | | | | 1,100 | 2,200 |
| **Total** | **4,300** | **8,600** | **610** | **915** | **318** | **397.5** | **5,228** | **9,912.5** |

[1] Figures provided by Teacher Education Branch, Ontario Department of Education.

**TABLE XIII B**

*Undergraduate Teacher Education*

Dollar Implications of Recommendations for Formula Financing, Fiscal 1971-72 (Based upon Projected Enrolments)

| Institution | FORMULA FINANCING — Total Weighted Enrolment (Units) | Basic Operating Income (Unit value $1,730) | Less: Formula Fees ($480) | Formula Operating Grant |
|---|---|---|---|---|
| Faculty of Education, Lakehead University | 722.5 | $ 1,249,925 | $ 229,440 | $ 1,020,485 |
| Faculty of Education, University of Ottawa | 740 | 1,280,200 | 216,000 | 1,064,200 |
| McArthur College, Queen's University | 1,200 | 2,076,000 | 288,000 | 1,788,000 |
| College of Education, University of Toronto | 3,000 | 5,190,000 | 720,000 | 4,470,000 |
| Althouse College, University of Western Ontario | 1,600 | 2,768,000 | 384,000 | 2,384,000 |
| Faculty of Education, University of Windsor | 450 | 778,500 | 144,000 | 634,500 |
| | 7,712.5 | 13,342,625 | 1,981,440 | 11,361,185 |
| Summer Session | 2,200 | 3,806,000 | 528,000 | 3,278,000 |
| **Total** | **9,912.5** | **$17,148,625** | **$2,509,440** | **$14,639,185** |

**The Institutional Model in Reverse**

It is possible to simulate a variety of educational programs that could be offered through formula financing as recommended, by using the modelling technique in reverse: that is, given a formula weight, the possibilities of supporting acceptable workloads and a viable curriculum may be explored.

As one example, the institutional model was applied to a faculty of education providing a consecutive program of 300 students in 1970-71. Under the recommendations discussed previously, a formula weight of 2.0 would apply for a consecutive program in teacher education for certification at the secondary school level thereby generating a formula income of $990,000 including fees (300 x 2.0 x $1,650). However, approximately 30% would be required to cover general university overhead including library expenditures leaving $693,000, or approximately $700,000 for the faculty budget. This amount would be required to finance the curriculum, academic and support staff salaries, and all expenditures for furniture and equipment.

At least 45% (or $450,000) of the formula income would be required to finance academic salaries in the faculty. The remaining 25% ($250,000) would then finance practice teaching and the ancillary expenses of the faculty.

At an average salary of $18,000 per year the faculty would be able to support a staff roster of 25, or a student-staff ratio of 12:1, the magnitude of which would be in line with the recommendations of the McLeod Report. Assuming that each staff member carried a workload of three full courses, the Faculty of Education would be able to offer 75 full-course sections.

What type of program, with an enrolment of 300, can be supported with 75 course sections? If the average section size were limited to a maximum of 25 then 1,875 course registrations ($75 \times 25$) could be accommodated. This would support a program based on three required teaching foundation courses leaving 975 course registrations [$1,875 - (3 \times 300)$] for electives. Keeping to a maximum average section size of 25, this would imply that the faculty could offer 39 courses (975/25) each limited to one section of 25, or any mixture (such as 19 courses limited to one section of 25 and 10 courses limited to two sections) which the student could draw upon for his electives.

# *Graduate work in education*

**Background and Discussion**

Graduate work in education in Ontario is currently offered at the University of Ottawa and the Ontario Institute for Studies in Education (through arrangement with the University of Toronto).

Table XIV gives statistics on full and part-time graduate enrolments in 1970-71. It will be noted that part-time graduate work in education is very substantial.

Graduate work at the University of Ottawa has been offered for many years. Programs of the faculty predate the introduction of formula financing in 1967. For this and other reasons officials of the university made strong representations to the Special Study Group that formula financing arrangements for these programs ought not to come within the scope of the present inquiry. They argued that Formula Categories 6 (weight 3.0) and 8 (weight 6.0) which had been used in 1967-68 and 1968-69 were the appropriate categories for graduate education programs at the University of Ottawa.

In 1969-70 and 1970-71 funding by the Provincial Government for the entire Faculty of Education (including the new undergraduate teacher education programs) was arrived at by a budget review process, the results of which, however, were not looked upon favourably by the University.

The decision to take the graduate enrolments in education off formula

**TABLE XIV**

| | University of Ottawa | O.I.S.E. | Total |
|---|---|---|---|
| *Full-time (Fall, 1970)* | | | |
| – qualifying year | 23 | 26 | 49 |
| – master's level | 155 | 254 | 409 |
| – doctoral level | 46 | 102 | 148 |
| **Total students** | **224** | **382** | **606** |
| *Part-time (Regular Session 1970-71)* | | | |
| – qualifying year | 55 | – | 55 |
| – master's level | 548 | 879 | 1,427 |
| – doctoral level | 97 | – | 97 |
| **Total students** | **700** | **879** | **1,579** |
| *Summer Session 1970* | | | |
| – master's level | 748 | 832 | 1,580 |
| – doctoral level | 42 | – | 42 |
| **Total students** | **790** | **832** | **1,622** |

had been viewed as arbitrary. On the other hand it has been established that graduate work in education (from the point of view of formula financing, in existence only at the University of Ottawa at the time*) was not the subject of cost studies and was, in fact, omitted in the original development of the formula. Because of these circumstances, entitlements under formula in 1967-68 and 1968-69 were claimed by the University in the aforementioned categories which apply generally for disciplines in the humanities, and these claims were allowed by reason of administrative discretion within the Department of University Affairs. This response, not unreasonable in the light of our own recommendations, represented a satisfactory temporary expedient in the eyes of the Department of University Affairs but was not seen to constitute an irrevocable and binding precedent. Thus, it was by this rather roundabout and contentious route that the Joint Subcommittee on Finance/Operating Grants undertook to include graduate work within the terms of reference of the Study. It is also necessary

* While the Ontario Institute for Studies in Education was founded in 1965, its budget was provided through the Ontario Department of Education.

to have a consistent financing policy for all graduate education no matter where it is conducted.

*Ontario Institute for Studies in Education*

The Ontario Institute for Studies in Education was created in 1965 to carry on research, development, field service and graduate studies in the field of education. OISE has developed very rapidly and has recently occupied new premises in Toronto. In the current year the total budget of the Institute is in excess of $12 million and there is a total staff of approximately 650. Of this total number, approximately 150 are full-time members of the teaching staff.

Since it was founded, OISE's budget has been funded through the Department of Education. For 1971-72 and subsequent years, however, it has been agreed that the Institute is to receive support for its graduate programs in education through CUA/DUA and that the formula financing system should be extended to provide for this support. Research and development work is also to be funded by the Provincial Government on a program basis but from somewhat different sources and under different conditions and circumstances than have hitherto prevailed. Accordingly, on rather short notice it was arranged that representatives of the Institute should meet with the Special Study Group. A meeting held on Wednesday, 18th November, 1970 provided the opportunity to discuss a number of current concerns and to receive a submission containing in some considerable detail the views of the Institute with regard to appropriate formula financing arrangements.

We understand that the package of proposals under consideration for the future support of the Institute involves a very different set of ground rules and that these have yet to be fully worked out. Not unexpectedly, therefore, there is considerable uncertainty and apprehension at the Institute about the precise manner in which formula financing will be implemented and entitlements calculated. Nor is it surprising, considering dependence of income on students enrolled, that officials of the Institute should argue persuasively for maximization of the yield from formula calculations.

Several important matters raised by the representatives of OISE involve problems associated with the introduction of formula financing and merit particular attention:

(a) The total resources placed at the disposal of the Institute for the current year, 1970-71, must affect future patterns and levels of support. Consequently, formula financing arrangements and their dollar implications cannot be seen in isolation, but must be integrated with overall institutional requirements and the manner in which they are supported.

(b) The notion that the formula is income-generating for a particular institution for all of its various programs and is not intended to be a pattern of internal distribution, is frequently cited to support the view that precision in program costing is not necessary or even desirable as a basis for assigning weights of different programs. Moreover, application of precise costing techniques is not possible considering the present state of the art. Since instruction at the Institute is limited to a single university discipline there is a total dependence upon the adequacy of only one or two weights. The Institute cannot make up income in some programs that it loses in others.* Unusual care is therefore necessary in determining the weights which are to apply.

(c) The Institute presently makes available graduate fellowships (as distinct from teaching assistantships) amounting to $400,000 annually as a part of the cost associated with its graduate work programs. These fellowships cannot be funded from formula because of a restriction governing the uses to which formula funds can be put (student aid programs are ineligible for such support). Clearly this is a problem but its solution lies outside the scope of the study.

(d) The current fiscal year (1970-71) for the Institute concludes June 30th, 1971 and funds are provided for the academic year to this date. For universities the fiscal year is also June 30th but the third or spring semester graduate enrolments (May–September) are funded in full within the fiscal year despite the fact that a significant part of the program (months of July and August) comes after June 30th. It may therefore be necessary, after further review, to provide a special transitional grant if formula financing is not inaugurated in whole or in part for OISE in the spring semester 1971.

There is a point of view expressed by the Institute in its submission which cannot be readily accepted. A laudable attempt at program budgeting has been made to differentiate the two broad areas of research and development on the one hand and graduate work on the other. The exercise (as do all such endeavours) necessarily rests on a number of relatively simple and arbitrary assumptions about cost proration. While the particular assumptions made were not unreasonable they do affect the accuracy and the conclusiveness of the final results. Current costs attributable to graduate work were calculated to be in excess of $4.1 million (this figure does not include

* The counter argument, of course, is that the Institute program is the beneficiary of *all* of the income represented by the entitlement for its enrolment. This, it will be appreciated, is not always the case under formula financing.

maintenance costs, normally met through operating account, which are absorbed in the rental-leaseback arrangement pertaining to the building on Bloor Street West). OISE officials suggest that the formula should provide funds approximately of the above order. While such an exercise is desired as one element in arriving at formula weights it must also be emphasized that dividing present enrolments into current budgets does not directly address three critical issues:

(a) The financial viability, on formula, of current enrolments in relation to current programs.
(b) Policy decisions with respect to appropriate levels of support: past, present and future.
(c) Desirable relative levels of support as between various university programs.

The Institute's educational program has grown very rapidly. The current level of support for it might be considered by some to be relatively generous. Fortunately sustained enrolment growth is envisaged through which any excess capacity and over-generous budgets (if indeed the case) can be easily corrected in time.

*Other institutions*

All graduate studies are expensive and the programs under review are no exception. A question of central importance (because of cost implications) is that of the extent to which opportunities for graduate work in education should be made more widely available in Ontario. Expressed in terms of the aspiration of individual institutions, where should graduate work be offered and on what basis?

Our discussions in the meetings with universities and with officials in the Department of Education indicate present opportunities fall far short of present demands for places, particularly at the master's level. For example, the academic requirements necessary for eligibility to become a principal at the secondary school level in Ontario are now such, we are told, as to alone require that graduate programs should provide places to accommodate several hundred students each year.

The curriculum at the master's degree level, while directed to professionals, provides two alternative types of degrees. The first is the academic, M.A. degree, leading to future doctoral work and is therefore research oriented. The second alternative is the M.A.T. and M.Ed. degrees which are terminal master's degrees and which have an essentially professional content. However, practicing educationists of various sorts, particularly teachers, are usually the candidates for all of these degrees.

It is suggested that it would be proper and desirable that the Colleges of

Education at Toronto, Western and Queen's should develop programs at the master's levels as soon as possible. Following review by the CUA a year ago and recent successful appraisal by the Ontario Council on Graduate Studies, McArthur College at Queen's University now offers Master of Education programs in Educational Administration and Curriculum. Enrolments anticipated are approximately 35 students this coming summer and 31 students in the regular session 1971-72 (10 full-time and 21 part-time). McArthur also plans to enter other fields in master's work. Considerable enthusiasm in support of graduate education also has been expressed by the College of Education, Toronto and Althouse College, University of Western Ontario both of which are actively developing master's level programs for early introduction. The Department of Education apparently recognizes the need for these additional programs and supports their inauguration. Our recommendations on this particular matter, however, are somewhat more cautious.

**Recommendations**

RECOMMENDATION 12

Formula financing should be applied to graduate programs in education commencing in 1971-72.

Existing categories and other formula arrangements are adequate for graduate programs in education. No basic changes are necessary to accommodate their inclusion.

RECOMMENDATION 13

Graduate programs in teacher education should be included in Category 6 at weight 3.0 for studies at the master's level and Category 8 at weight 6.0 for studies at the doctoral level.

All doctoral studies (irrespective of discipline area) are presently provided for under Category 8.

Master's programs in education could be included in Categories 5 or 6 as appropriate (trimester weighting of 1) or in Category 7 (trimester weighting of 1⅓). As might reasonably be expected, there is considerable program differentiation both at OISE and in the Faculty of Education, Graduate Sec-

tion, of the University of Ottawa. At the Ontario Institute, for example, eleven different departments encompass different fields of specialized study all of which are available to the doctoral level. It goes without saying that some of these fields of study are properly more costly than others. For example, applied educational psychology is a relatively more costly program than history or philosophy of education.

We recommend however a single weight for all graduate work in education at the master's level. Weights which are differentiated solely on the basis of the degree awarded (M.A., M.Ed. or M.A.T.) clearly are inappropriate. Similarly, to attempt to respond to differing relative costs within the various sub-fields of a particular discipline would be an exercise fraught with difficulties. It is doubtful if the present techniques of costing would permit it to be done accurately in any event. Experience suggests that the formula system ought to be even more simplified than at present and that tendencies to increasing complexity ought to be resisted. A scheme simply expressed, although not necessarily simply derived, is also the most equitable one in the long run. Ongoing questions of program definition and other administrative interpretations are thereby avoided or at least minimized. Formula arrangements should be as simple as possible in order to prevent a steering effect on academic development, either by inhibiting innovation and change, or by creating the temptation to expand programs for financial motives.

Prior to a formal introduction of trimester counting, Category 5 (weight of 2.0) was devised for programs of professional training which did not require a dissertation and were ordinarily completed in two terms. Category 6 was designed for the less costly master's programs in fields such as the humanities. Since the requirements for the degree were seen to include a dissertation (assuming a 12-month academic year), a weighting of 3.0 was provided. Category 7 was introduced for most costly year-long programs such as those in the pure sciences and the weight for this category was set at 4.0.

Accompanying the formal introduction of trimester counting were several other factors which affected formula entitlements for graduate work in education. Firstly, the thesis/non-thesis distinction between Categories 6 and 7, and Category 5 is no longer valid. Some, if not most, Category 6 and 7 programs no longer require a dissertation, whereas some Category 5 programs do require a dissertation and some are also three semester programs. Secondly, the new minima-maxima provisions apply at the master's level only in Categories 6 and 7 and not in Category 5. This decision apparently reflected uncertainties about the time involved in the preparation of a thesis.*

* This discussion logically raises questions as to whether minima provisions should apply for category 6 and 7 candidates who are not required to prepare a thesis.

Much of the graduate work in education at the master's level is yearlong and involves the preparation of a dissertation. Thirdly, all enrolments in Category 5 programs have graduate status while in Categories 6 and 7 only those having the prerequisite under-graduate background are eligible. Other students are designated as being in the qualifying year and are dealt with as undergraduates and weighted accordingly.

It can be seen that each of Categories 5, 6 and 7 could have partial applicability with respect to graduate programs in education at the master's level. Our recommendation, however, is to use Category 6 exclusively. Such cost evidence as we have examined – and we make no claims that there have been studies in depth – support this recommendation. If there is a certain legitimacy to some particular specialized fields in education being regarded as more appropriate to Category 7 this is surely offset by economies of scale arising from larger enrolments than are common in graduate work. Large enrolments tend to increase class size which is the most cost-sensitive factor. If formula financing is approved along the lines suggested, it should also be noted that:

(i) Minima and maxima provisions for graduate entitlements should apply only for students first registering after June 30th, 1971.
(ii) The formula fee should be that in general use for graduate work programs. This amount is currently $135 per semester.
(iii) Qualifying year students should be reported as undergraduate education students (weight 2.0).

RECOMMENDATION 14

Development of new graduate programs in education and extension of existing programs should await results of a study directed to need, such study to be undertaken immediately.

The case has been made that there is a compelling need for additional programs at the master's level, and that the response (namely the active development of programs by the colleges of education at Queen's, Toronto and Western) is an appropriate one. However, all new programs, particularly those in graduate work, must be reviewed by the CUA before such programs are eligible for formula operating support.

A comprehensive study of total requirements should be undertaken immediately so that further developments in graduate work (even for the 1971-72 session) can proceed in orderly and co-ordinated fashion according to an

agreed timetable. Planning should resolve such critical questions as: Who does what programs? What numbers of students are to be accommodated? At what pace should further development proceed?

A committee representing all parties concerned, should be convened at the earliest possible date to prepare a report on this matter for consideration by the Committee on University Affairs.

**Dollar Implications of Recommendations for Formula Financing (Graduate)**

Tables XV and XVI outline the dollar implications for formula financing in fiscal 1970-71 and 1971-72 of applying the foregoing recommendations.

**TABLE XV A**

*Graduate work in education*

Dollar Implications of Recommendations for Formula Financing, Fiscal 1971-72 (Based upon Projected Enrolments)

| | ENROLMENTS | | | | |
|---|---|---|---|---|---|
| | Students | | | | Units |
| | Summer 1971 | Fall 1971 | Winter 1972 | Spring 1972 | |
| *University of Ottawa* | | | | | |
| Full-time – Master's | | 150 | 150 | 50 | 350 |
| – Doctor's | | 50 | 50 | 40 | 280 |
| FTE, Part-time – Master's | 400 | 187.5 | 187.5 | 1.8 | 776.8 |
| – Doctor's | 22.5 | 24 | 24 | 12.9 | 166.8 |
| Full-time–Qualifying Year | | 30 | | | 60 |
| | 422.5 | 441.5 | 411.5 | 104.7 | 1,633.6 |
| *Ontario Institute for Studies in Education* | | | | | |
| Full-time – Master's | | 215 | 206 | 170 | 591 |
| – Doctor's | | 109 | 104 | 24 | 474 |
| FTE, Part-time – Master's | 372 | 221.4 | 210.6 | 3 | 807 |
| Full-time–Qualifying Year | | 82 | | | 164 |
| FTE, Part-time–Qualifying Yr. | 14.7 | 56 | | 3.7 | 148.7 |
| | 386.7 | 683.4 | 520.6 | 200.7 | 2,184.7 |
| *McArthur College, Queen's University* | | | | | |
| Full-time – Master's | | 10 | 10 | | 20 |
| FTE, Part-time – Master's | 17.5 | 7 | 7 | | 31.5 |
| | 17.5 | 17 | 17 | | 51.5 |
| **Total** | **826.7** | **1,141.9** | **949.1** | **305.4** | **3,869.8** |

**TABLE XV B**

*Graduate Work in Education*

Dollar Implications of Recommendations for Formula Financing, Fiscal 1971-72 (Based upon Projected Enrolments)

| | | FORMULA FINANCING | | |
|---|---|---|---|---|
| | Total Weighted Enrolment (Units)* | Basic Operating Income (Unit value $1,730) | *Less*: Formula Fees | Formula Operating Grant |
| University of Ottawa | 1,633.6 | $2,826,128 | $196,677 | $2,629,451 |
| Ontario Institute for Studies in Education | 2,184.7 | 3,779,531 | 295,797 | 3,483,734 |
| McArthur College, Queen's University | 51.5 | 89,095 | 6,953 | 82,142 |
| **Total** | **3,869.8** | **$6,694,754** | **$499,427** | **$6,195,327** |

* Excluding possible minima entitlements which might be earned. These are not likely to be significant in this first year of formula financing.

# *Appendix A*

*Membership of the Joint Subcommittee on Finance/Operating Grants*

Mr. J. H. Sword, Committee of Presidents of Universities of Ontario } Co-Chairmen
Dr. D. T. Wright, Committee on University Affairs } Co-Chairmen
Dr. Elizabeth Arthur, Committee on University Affairs
Mr. J. McCarthy, Committee of Presidents of Universities of Ontario
Mr. B. Trotter, Committee of Presidents of Universities of Ontario
Mr. J. S. Bancroft, Department of University Affairs, Secretary } Co-directors, Special Study Group
Mr. B. L. Hansen, Committee of Presidents of Universities of Ontario Secretariat } Co-directors, Special Study Group

*Other Members of the Special Study Group*

Mr. H. C. Anderson, Finance Officer, Ontario Department of University Affairs
Mr. W. E. Mitchell, Executive Officer, Ontario Department of Education
Mr. Ivor Wm. Thompson, Research Associate, Committee of Presidents of Universities of Ontario
Mr. P. J. Wright, Administrative Assistant, Ontario Department of University Affairs

# *Appendix B*

*Facilities for teacher education and their financing*

A major concern voiced by representatives of the universities and of their faculties and colleges of education is the impact of integration on capital entitlements. Although recommendations on the required level of capital support are outside the scope of this study, we believe it important to refer their concerns to the Joint Capital Studies Committee.

These concerns ranged over a wide spectrum. McArthur College, Althouse College and the St. Catharines Teachers' College are all housed in relatively new buildings designed to accommodate specific enrolment levels. These colleges currently have enrolments below design limits. Thus, if the buildings were to be counted as part of the inventory of university space, the university space entitlement would be impaired (unless the capital weight were set artificially high). Moreover, the Minister of Education has assured these universities (through the "Memorandum of Understanding") that they would not be adversely affected in financial terms by the integration process. Including education space with that of the universities might be construed as contravening this understanding.

A sharing of facilities could be considered if teacher education buildings were "on campus" (St. Catharines Teachers' College is, but McArthur and Althouse are some distance away). In retrospect, the colleges might better have been constructed next to, or on the university property.

The teacher education facilities at Toronto, Ottawa, Windsor and Thunder Bay are faced with different problems. Their present facilities are inadequate to provide for new curricula and/or for enrolment growth in teacher education. Plans for a new building at the University of Toronto are under consideration. The other universities consider themselves faced with severe problems. Many offices house two or three faculty members. This arrangement has proven inappropriate for the privacy required in student counselling and also prohibits small, informal discussion groups. Lakehead University has already converted several functional areas, such as the staff lounge and washrooms into office space to accommodate the present staff. The library has secured additional space by acquiring the student lounge but further growth, particularly in the study and volume storage areas, will be impossible. At all these institutions present university entitlements and priorities are not seen as permitting the allocation of funds for new or improved teacher education facilities.

Attention was also drawn to the need for certain specialized facilities. Differences in specialized facilities available become apparent by comparing the facilities at a new institution such as McArthur College to those at the University of Windsor or Lakehead. The latter were constructed on the model of an elementary school with the belief that elementary teachers should be trained in an environment similar to that in which they would find themselves upon graduation. There is little in these older institutions which would compare to the specialized teaching space to be found at the very modern McArthur College.

It has often been argued that economies of scale should be achieved in the integration process and that one of the main areas of economy would be in the sharing of facili-

ties, particularly with respect to classrooms and laboratories. During the course of our study it became apparent that the sharing could actually be the reverse of what we expected by university programs making use of education space! All classrooms, with the exception of large lecture theatre halls, are equipped with movable chairs and desks to demonstrate the use of different arrangements on teaching methods. In effect, the classroom becomes a laboratory. The classrooms are also equipped with extensive display facilities, a feature which is not found in the standard type of lecture room.

It would appear reasonable to assume that other university programs could make use of education classroom space but laboratory space presents a different problem. The colleges of education argued strongly that present laboratory facilities in the universities do not meet the requirements for teacher education. The study group was not fully convinced that additional laboratory facilities were necessary, however. One argument advanced was that university laboratories are, in general, not adequately equipped to satisfy teacher education program requirements and that similar facilities to those available in the high schools must be provided. It must be borne in mind that laboratory facilities are expensive to construct and to equip.

Levels of capital support are not within the scope of this report but a summary of comments made by the universities will be made available to the Joint Capital Studies Committee. Because of the problems and concerns voiced it is suggested that teacher education programs not be included in the interim capital formula until such time as a complete review of each particular situation can be undertaken.

# *Appendix C*

*University representatives in attendance at Study Group meetings*

October 1 – UNIVERSITY OF OTTAWA

| | |
|---|---|
| R. Guindon | Rector and Vice Chancellor |
| M. Chagnon | Vice Rector (Academic) |
| A. K. Gillmore | Vice Rector (Administration) |
| P. Morand | Assistant Vice-Rector (Academic) |
| J. McCarthy | Assistant Vice-Rector (Administration) |
| L. P. Desjarlais | Dean – Faculty of Education |
| J. M. Tessier | Associate Dean – Faculty of Education |

October 8 – QUEEN'S UNIVERSITY

| | |
|---|---|
| J. J. Deutsch | Principal and Vice Chancellor |
| G. A. Harrower | Vice Principal (Academic) |
| R. J. Kennedy | Vice Principal (Administration) |
| L. G. Macpherson | Vice Principal (Finance) |
| V. S. Ready | Dean – McArthur College of Education |
| W. S. Peruniak | Assistant Dean – McArthur College of Education |

October 15 – UNIVERSITY OF TORONTO

| | |
|---|---|
| J. H. Sword | Executive Vice President (Academic) and Provost |
| A. G. Rankin | Executive Vice President (Non Academic) |
| D. F. Forster | Vice Provost and Executive Assistant to the President |
| D. F. Dadson | Dean – College of Education |
| H. O. Barrett | Assistant Dean – College of Education |
| G. Mitchell | Administrative Assistant |

October 28 – UNIVERSITY OF WESTERN ONTARIO

| | |
|---|---|
| D. C. Williams | President and Vice-Chancellor |
| R. J. Rossiter | Vice President (Academic) |
| A. K. Adlington | Vice President (Administration and Finance) |
| R. R. Glover | Comptroller |
| C. M. Carmichael | Professor, Department of Geophysics |
| B. G. Hardwick | Director, Office of Information Analysis |
| W. S. Turner | Assistant to the Vice President (Academic) |
| E. Stabler | Dean, Althouse College of Education |
| T. J. Casaubon | Assistant Dean, Althouse College of Education |
| W. G. Nediger | Registrar, Althouse College of Education |

Also attending at the invitation of the university:

| | |
|---|---|
| D. F. Harris | Principal, London Teachers College |

October 29 – UNIVERSITY OF WINDSOR

| | |
|---|---|
| F. A. DeMarco | Vice President |
| W. R. Mitchell | Vice President, Administration and Treasurer |
| J. E. Schiller | Director of Finance |
| A. M. Marshall | Director of Institutional Research |
| R. S. Devereaux | Principal, Faculty of Education |

November 5 – LAKEHEAD UNIVERSITY

| | |
|---|---|
| W. G. Tamblyn | President and Vice Chancellor |
| B. Mason | Executive Assistant to the President |
| G. H. Thompson | Comptroller |
| J. T. Angus | Dean, Faculty of Education |

YORK UNIVERSITY

| | |
|---|---|
| D. W. Slater | President |
| J. T. Saywell | Dean of the Faculty of Arts and Science |

BROCK UNIVERSITY

| | |
|---|---|
| J. A. Gibson | President and Vice Chancellor |
| A. J. Earp | Provost and Vice President |
| C. A. Plint | Dean of Arts and Science |
| R. A. Nairn | Chief Administrative Officer |
| T. B. Varcoe | Director of Finance |

Also participating by invitation of the University:

| | |
|---|---|
| R. B. Moase | Principal, St. Catharines Teachers' College |

November 16 – ONTARIO DEPARTMENT OF EDUCATION

| | |
|---|---|
| J. R. McCarthy | Deputy Minister of Education |
| G. L. Woodruff | Director, Teacher Education Branch |

ONTARIO INSTITUTE FOR STUDIES IN EDUCATION

| | |
|---|---|
| A. F. Brown | Acting for the Assistant Director |
| G. E. Flower | Coordinator of Graduate Studies |
| A. G. Martin | Superintendant, Finance |

November 17 – ASSOCIATION OF DEANS OF COLLEGES AND FACULTIES OF EDUCATION

| | |
|---|---|
| D. F. Dadson | Dean, College of Education, University of Toronto (Chairman) |
| J. T. Angus | Dean, Faculty of Education, Lakehead University |
| V. S. Ready | Dean, McArthur College, Queen's University |
| E. Stabler | Dean, Althouse College, University of Western Ontario |
| J. M. Tessier | Associate Dean, Faculty of Education, University of Ottawa |

# *Appendix D*

*Highlights of visits to other jurisdictions –*
*Province of Alberta and State of Illinois*

We considered it desirable to study other jurisdictions to put into proper perspective our findings concerning teacher education in Ontario and to test the tentative recommendations for this study. After consultation with the Advisory Group it was decided to visit the jurisdictions of Alberta and Illinois.

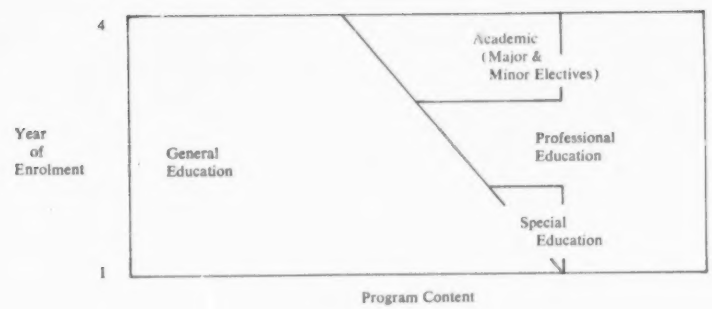
Arrangements were made to visit the University of Alberta through Dr. L. A. Thorssen, Chairman of The Alberta Universities Commission. Both Dr. Thorssen and Mr. H. Ford, Financial Analyst of the Commission, made it possible to accomplish much in a few days. Also, appreciation is due Dr. Herbert T. Coutts, Dean of the Faculty of Education. Members of the Special Study Group were given an opportunity to participate in a meeting of the Faculty while it was in progress.

The visit to Illinois was arranged through the kind offices of Dr. Richard Collister of the Illinois Board of Higher Education. Dr. Charles W. Brim of the Board of Regents and Dr. Henry J. Hermanowicx, Dean of the College of Education, Illinois State University, took time out, on short notice, from a very busy schedule to answer our inquiries, thereby contributing materially to our study.

Alberta some years ago followed, more or less, the same pattern now taking place in Ontario; that is, bringing teacher education into the universities as a full faculty and university program of study. The courses offered are specifically designed to meet the academic requirements for teacher certification in the Province and changes are implemented only in consultation with an advisory body representative of all parties involved with teacher education. Illinois followed a different pattern of development and established universities for the specific purpose of training teachers and subsequently broadening them so that degrees are also offered in liberal arts and science together with those in education. All graduates of the educational program are eligible for certification as teachers by the state.

At both the University of Alberta and Illinois State University teacher training represents a significant percentage of total university enrolment. At Alberta, the percentage is 25%; at Illinois State, 80%. While both these percentages are significantly higher than at any university in Ontario this does not in any way invalidate the many comparisons which are possible. The programs at both universities are concurrent although there are some differences between them as to the mix of the general academic and professional components. At Alberta the program is divided equally between the academic and the professional education subjects over the entire four years. At Illinois State the split is similar but the distribution between years varies approximately as illustrated by the following chart.

The two main questions raised were (1) relative program costs and (2) nature of the curriculum. Fortunately both jurisdictions have just completed cost studies based on 1969-70 costs and, while the results are not officially available, they were discussed and indicate that the proper funding level for teacher education falls within the range of costs which we would expect for professional university programs in general. The




figures for Illinois were based on a cost per credit hour; those for Alberta on a cost per student. Costs of practice teaching were included in both studies though the honorariums paid vary considerably from those in Ontario. The "laboratory schools" run by the university at both the elementary and secondary level were excluded from the costs in the Illinois study (Alberta does not run such schools).

Discussions in Illinois particularly went beyond reviewing the absolute and relative costs of education courses to analyzing the causes affecting the costs. Two of the most significant factors identified were faculty salaries and class size. Since the education content in the program comes mainly during the junior and senior years, the teaching involved senior staff with small classes.

Funding for the practicum varied considerably from the practice followed in Ontario. In Alberta the practice teaching is done in half-days for two blocks of five weeks with a payment of $5 per half-day to the associate teachers. The total cost of $250 is paid as an honorarium to the associate teacher. It is interesting to note that the central co-ordinating committee has the responsibility for selecting the associate teachers; it is not the sole responsibility of the Faculty of Education.

Practice teaching in Illinois forms part of the curriculum requirements and consists of eight semester hours out of the total of 128 required for the degree. The student selects the school in which he would like to teach and is assigned to a teacher who, by law, must remain in the class supervising the student teacher. The student actually spends eight to nine weeks at the school, is expected to establish residency in the community and take an active part in the community activities. During the practicum the student must receive at least three visits from a professor of the College. The co-operating (associate) teachers receive an honorarium of $8 per semester hour, a total of $64. No payments are made by two of the universities while several others make the payments to the system and not directly to the teachers. Thus the co-operating teachers may receive no payment if the system opts to direct the income towards other expenditures such as library books. Several universities also waive the cost of extra courses taken by the teacher at the university. Co-operating teachers are selected by the university and must have at least four years of teaching experience.

In both jurisdictions the idea was expressed that practice teaching should be part of the professional responsibility and payments should not be required. However it was emphasized that any move in this direction must originate from the teachers' federations. Neither jurisdiction reimburses the students for costs incurred during the practice

teaching session and both expressed the belief that these costs should not be covered but instead should be considered part of the cost to the student of his education. However it should be noted that students in Alberta do not travel extensively since all practice schools are selected in the immediate area.

One of the major cost items in teacher education is the level of faculty salaries. Both universities indicated that they did not draw their staff exclusively from the teaching profession but also relied extensively on other backgrounds. For example, a professor teaching History of Education would not require teaching experience but instead may be a historian interested in education. Appointments of junior teachers with less than three years experience are quite common. There is some part-time teaching conducted in each jurisdiction and each indicated a move to an increased use of this resource in the future. As a result the faculty mix is similar to that for other university programs and salary levels are no different on a rank by rank comparison. At the same time both in Illinois and in Alberta faculties are composed largely of individuals holding advanced degrees (usually doctorates).

The approach to curriculum and instruction courses was quite different to the philosophy expressed in our meetings with the Ontario institutions. At Illinois State University courses are taught by the academic Departments concerned, not by the departments within the Faculty of Education. Thus a student majoring in mathematics would receive basic instruction in the Department of Mathematics augmented by specialized courses designed to teach the student how to give instruction in mathematics. A professor in the Department of Mathematics with a background in teaching mathematics in the school system would teach the course in curriculum and instruction. For each discipline the choice of whether to offer courses of the curriculum and instruction type is left to the department concerned. Thus students majoring in English may not receive a curriculum and instruction course except in certain special cases where the Faculty of Education may deem it absolutely necessary to do so. Both jurisdictions indicated that it was not necessary to offer curriculum and instruction courses for separate disciplines (Spanish, French and Russian) but instead were convinced that it was sufficient to offer one course in the broad discipline grouping concerned (such as Modern Languages or Classical studies).

Officials at both Illinois and Alberta, particularly the latter, expressed the view that while their programs were designed to produce graduates who would be certifiable as teachers they did not consider it to be their essential function to "turn out graduates" in numbers indicated by demand for teachers at any point in time. They believe that students are offered a well-rounded general education experience which can be of individual benefit in many occupational fields besides the teaching profession. Alberta stated that its graduates are in general demand (in particular mentioning insurance companies, sales and the ministry). Illinois has a policy of special assistance for students in education programs which undoubtedly affects the number of candidates but, again, their graduates do not flow exclusively to the teaching profession and the curriculum is designed with this approach in mind.

Of special interest was the attitude to the specialized nature of educational facilities. Officials both in Alberta and in Illinois were most explicit in expressing their views that special classrooms and laboratories patterned after a typical school environment are not required and that, in fact, they did not have any such space in their buildings. The Alberta people enlarged on this observation and pointed out that with current ideas on the non-conventional uses of classrooms and on open classroom buildings,

probably the only place one finds a "typical classroom" is in much older schools and in certain institutions exclusively given over to teacher training. As a result while certain facilities may be designated for the particular use of a faculty of education, these are not exclusively designed for specialized needs. Within reason, shared facilities between teacher education and other university programs therefore appear feasible.

Several other features of teacher education elsewhere should be remarked upon. (1) Alberta and Illinois require a university degree as a basic requirement for certification at both the elementary and secondary level. (2) There is no differentiation in the funding of elementary and secondary programs. (3) An urgent need was expressed for specialized teacher training in all areas of special education. While actual costs were not available there was agreement that it is considerably more expensive than the regular program in teacher education. Many of the state colleges in Illinois offer special education programs but most have small enrolments. In an attempt to increase these, scholarships are being offered as an inducement to students to enter the field. A special doctoral program is also being considered which is to be oriented toward the preparation of those teaching in the field of special education.

Graduate work is oriented primarily toward areas of specialization (education administration, audio visual, guidance and counselling, etc.) or to upgrading a student's major field of study. Faculty research endeavours are limited in scope and pretentiousness.

The costs of graduate teacher education programs appeared to be approximately equivalent to those for other graduate programs and funding policies reflect this. Unfortunately time did not permit more than very brief discussion of this particular matter.

# *Appendix E*

*Relevant sections of Department of Education Act dealing with the financing of university teacher education programs*

The opinion was expressed that there may be some conflict between the philosophy of formula financing and Sub-Sections 16(2), 17(2) of the Department of Education Act. These clauses state that the cost of establishment, maintenance and conduct of a college of education or of a teachers' college shall be payable out of such monies as may be appropriated by the Legislature *"for that purpose"*. This could be seen to imply that funds appropriated for the operation of a teachers' college or a college of education under a university must be used for the purpose appropriated by the Legislature and may not be seen as general university income.

There may be no problem however since no funds would actually be appropriated by the Legislature under the Department of Education Act but would be appropriated in the Estimates of the Department of University Affairs under grants to universities and colleges. It may be desirable nevertheless to obtain a legal ruling in this regard and, if necessary, to amend the Statute accordingly.

The relevant sections of the Department of Education Act are reproduced in their entirety hereunder:

16(1) Subject to the approval of the Lieutenant Governor in Council, the Minister may,

(a) establish, maintain and conduct a college of education for the professional training and instruction of teachers; or

(b) enter into an agreement with a university providing for the establishment, maintenance and conduct of such college of education by the university, upon such terms and conditions as the Minister and the university may agree upon,

and may enter into arrangements for the use of any elementary or secondary school for practice teaching purposes or for the services of teachers in any secondary school as lecturers or instructors in the college.

16(2) The cost of the establishment, maintenance and conduct of the college of education shall be payable out of such monies as may be appropriated by the Legislature for that purpose R.S.O. 1960, c. 94, s. 16.

17(1) Subject to the approval of the Lieutenant Governor in Council, the Minister may,

(a) establish, maintain and conduct teachers' colleges and summer and winter courses for the training and instruction of teachers; and

(b) enter into an agreement with any university or college providing for the establishment, maintenance and conduct of a teachers' college by the university or college, upon such terms and conditions as the Minister and the university or college may agree upon.

17(2) The cost of the establishment, maintenance and conduct of teachers' colleges and summer and winter courses shall be payable out of such monies as may be appropriated by the Legislature for those purposes. R.S.O. 1960, c. 94, s. 17.